SyncMaster 400CXN,460CXN

LCD Display

User Manual

Safety Instructions

Notational

Note

These safety instructions must be followed to ensure your safety and prevent property damage.

Make sure to read the instructions carefully and use the product in the correct manner.

Warning / Caution

Failure to follow directions noted by this symbol could result in bodily harm or damage to the equipment.

Notational Conventions

Prohibited	Important to read and understand at all times
Do not disassemble	Disconnect the plug from the outlet
Do not touch	Ground to prevent an electric shock

Power

When not used for extended period of time, set your computer to DPM.

If using screen saver, set it to active screen mode.

The images here are for reference only, and are not applicable in all cases (or countries).

Shortcut to Anti-Afterimage Instructions



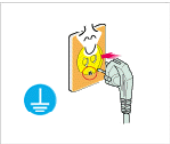
Do not use a damaged power cord or plug or a damaged or loose power outlet.

- Otherwise, this may result in electric shock or fire.



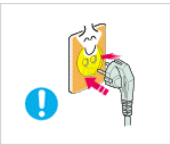
Do not touch the power plug with wet hands when removing or plugging the plug into the outlet.

- Otherwise, this may result in electric shock.



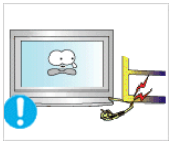
Make sure to connect the power cord to a grounded power outlet.

- Otherwise, it may result in electric shock or personal injury.



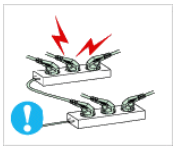
Ensure that the power plug is plugged into the power outlet firmly and correctly.

- Otherwise, this may result in fire.



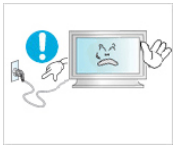
Do not forcefully bend or pull the power plug and do not place any heavy material on it.

- Otherwise, this may result in fire.



Do not connect multiple appliances to the same power outlet.

- Otherwise, this may cause fire due to overheating.



Do not disconnect the power cord while using the product.

- Otherwise, this may result in damage to the product due to electric shock.



To disconnect the apparatus from the mains, the plug must be pulled out from the mains socket, therefore the mains plug shall be readily operable.

- This may cause electric shock or fire.



Use only the power cord provided by our company. Do not use the provided power cord of another product.

- Otherwise, this may result in fire or electric shock.

Installation



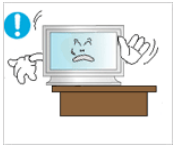
Be sure to contact an authorized Service Center when installing your LCD Display in a location with heavy dust, high or low temperatures, high humidity, and exposed to chemical substances and where it operates for 24 hours such as at airports, train stations etc.

Failure to do so may cause serious damage to your LCD Display.



Ensure that at least two persons lift and move the product.

- Otherwise, it may be dropped and cause personal injury, and/or damage the product.



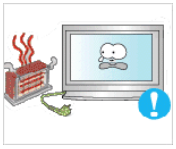
When installing the product in a cabinet or rack, make sure that the front end of the bottom of the product does not project out.

- Otherwise, it may fall or cause personal injury.
- Use a cabinet or rack of a size appropriate to the product.



DO NOT PLACE CANDLES, MOSQUITO REPELLANT, CIGARETTES AND ANY HEATING APPLIANCES NEAR THE PRODUCT.

- Otherwise, this may result in fire.



Keep heating appliances as far away from the power cord or the product as possible.

- Otherwise, this may result in electric shock or fire.



Do not install it in a badly ventilated location such as a bookcase or closet.

- Otherwise, this may result in fire due to an increase in the internal temperature.



When putting the product down, make sure to put it down softly.

- Otherwise, this may result in damage to the screen display.



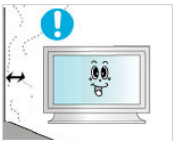
Do not place the front of the product on the floor.

- Otherwise, this may result in damage to the screen display.



Ensure that an authorized installation company installs the wall mount.

- Otherwise, it may fall and cause personal injury.
- Make sure to install the specified wall mount.



Install your product in a well ventilated location. Ensure that there is a clearance of more than 10 cm from the wall.

- Otherwise, it may result in fire due to an increase in the internal temperature.



Bend the outdoor antenna cable downwards at the location where it goes in so that rainwater does not flow in.

- If rainwater enters the product, it may result in electric shock or fire.



Install the antenna far away from any high voltage cables.

- If the antenna touches or falls onto a high voltage cable, it may result in electric shock or fire.



Ensure that the packaging vinyl is kept away from children.

- Otherwise, it may result in serious harm (suffocation) if children play with it.



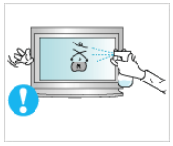
If the height of your LCD Display is adjustable, do not place any object or part of your body on the stand when lowering it.

- This may cause damage to the product or the person carrying it.

Clean



When cleaning the LCD Display case or the surface of the TFT-LCD screen, wipe with a slightly moistened, soft fabric.

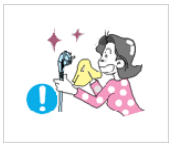


Do not spray cleaner directly onto the surface of the product.

- Otherwise, this may result in the discoloration and distortion of the structure and the screen surface may peel off.

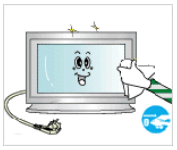


Clean the product using a soft cloth with a LCD Display cleaner only. If you must use a cleaner other than the LCD Display cleaner, dilute it with water at a ratio of 1:10.



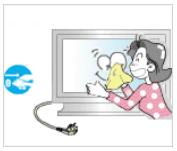
When cleaning the power plug pins or dusting the power outlet, clean it with a dry cloth.

- Otherwise, it may result in fire.



When cleaning the product, make sure to disconnect the power cord.

- Otherwise, it may result in electric shock or fire.



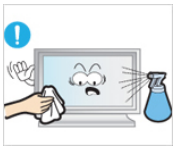
When cleaning the product, disconnect the power cord and clean it softly with a dry cloth.

- (Do not use chemicals such as wax, benzene, alcohol, thinner, mosquito repellant, lubricant, or cleaner.) These may change the appearance of the product surface and peel off the indication labels on the product.



Since the product housing is easily scratched, make sure to use the specified cloth only.

- Use the specified cloth adding only a little water. As the product may be scratched if there is any foreign material on the cloth, make sure to shake it thoroughly before using it.



When cleaning the product, do not spray water directly onto the main body of the product.

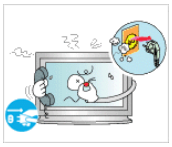
- Ensure that water does not enter the product and that it is not wet.
- Otherwise, this may result in electric shock, fire or a malfunction.

Others



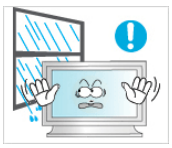
The product is a high voltage product. Ensure that users do not disassemble, repair or modify the product themselves.

- Otherwise, this may result in electric shock or fire. If the product needs to be repaired, contact a Service Center.



If there is a strange smell or a strange sound or smoke is coming from the product, disconnect the power plug immediately and contact a Service Center.

- Otherwise, this may result in electric shock or fire.



Do not place this product in a location exposed to moisture, dust, smoke, water, or in a car.

- Otherwise, this may result in electric shock or fire.



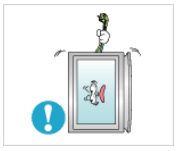
When you drop the product or the case is broken, turn the power off and disconnect the power cord. Contact a Service Center.

- Otherwise, this may result in electric shock or fire.



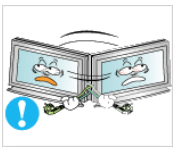
If thunder or lightening is occurring, do not touch the power cord or antenna cable.

- Otherwise, this may result in electric shock or fire.



Do not try to move the LCD Display by pulling only the wire or the signal cable.

- Otherwise, it may fall and result in electric shock, damage to the product or fire due to damage to the cable.



Do not lift or move the product back and forwards or right and left while only holding the power cord or signal cables.

- Otherwise, it may fall and result in electric shock, damage to the product or fire due to damage to the cable.



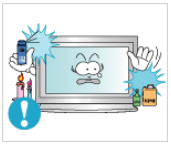
Make sure that the ventilating opening is not blocked by a table or curtain.

- Otherwise, it may result in fire due to an increase in the internal temperature.



Do not place any containers containing water, vases, flowerpots, medicines as well as any metal on the product.

- If water or a foreign material enters the product, disconnect the power cord and contact a Service Center.
- This may result in a product malfunction, electric shock, or fire.



Do not use or keep combustible spray or flammable material near the product.

- Otherwise, this may result in an explosion or fire.



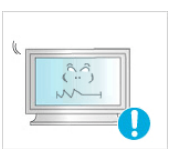
Do not insert any metal, such as chopsticks, coins, pins and steel, or flammable objects, such as matches or paper, inside the product (through the ventilating openings, input and output terminals, etc).

- If water or foreign material enters the product, disconnect the power cord and contact a Service Center.
- Otherwise, this may result in electric shock or fire.



When using a fixed screen for a long time, an afterimage or stain may occur.

- If you are not using your product for a long period of time, put it into sleep mode or use a moving screen saver.



Set a resolution and frequency appropriate to the product.

- Otherwise, your eyesight may be damaged.



When using headphones or earphones, do not turn the volume too high.

- Having the sound too loud may damage your hearing.



If you continually move closer to the product screen, your eyesight may be failing.



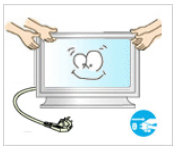
Take a rest for at least five (5) minutes after using the LCD Display for one (1) hour.

This reduces the weariness of your eyes.



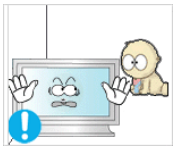
Do not install it in an unstable location such as an unstable rack or uneven surface or a location exposed to vibrations.

- Otherwise, it may fall and cause personal injury and/or damage the product.
- If you use the product in a location exposed to vibrations, it may damage the product and result in fire.



When moving the product, turn the power off and disconnect the power plug, antenna cable, and all the cables connected to the product.

- Otherwise, it may result in electric shock or fire.



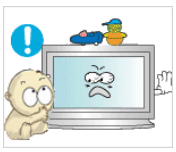
Ensure that children do not hang onto the product or climb up onto the product.

- The product may fall and cause personal injury or death.



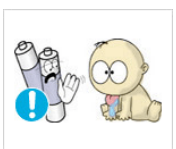
If you do not use the product for a long period of time, disconnect the power cord from the power outlet.

- Otherwise, this may result in overheating or fire due to dust, and may result in fire due to electric shock or leakage.



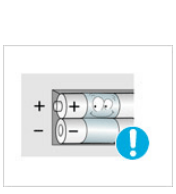
Do not place any heavy items or toys or confectionery, such as cookies etc. that may attract the attention of children and to the product.

- Your children may hang onto the product causing it to fall and this may result in personal injury or death.



Be careful that children do not place the battery in their mouths when removed from the remote control. Place the battery in a location that children or infants cannot reach.

- If children have had the battery in their mouths, consult your doctor immediately.



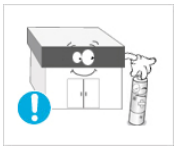
When replacing the battery, insert it with right polarity (+, -).

- Otherwise, the battery may become damaged or it may cause fire, personal injury or damage due to leakage of the internal liquid.



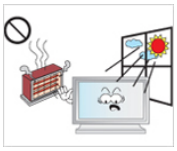
Use only the specified standardized batteries, and do not use a new battery and a used battery at the same time.

- Otherwise, the batteries may be damaged or cause fire, personal injury or damage due to a leakage of the internal liquid.



The batteries (and rechargeable batteries) are not ordinary refuse and must be returned for recycling purposes. The customer is responsible for returning the used or rechargeable batteries for recycling.

- The customer can return used or rechargeable batteries to a nearby public recycling center or to a store selling the same type of the battery or rechargeable battery.



Do not place the product in a location exposed to direct sunlight or near any heat such as a fire or heater.

- This may reduce the lifetime of the product, and may result in fire.



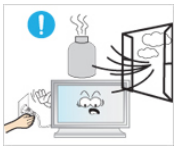
Do not drop any objects onto the product or cause any impact to the product.

- Otherwise, this may result in electric shock or fire.



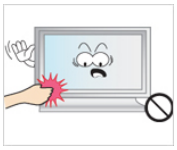
Do not use a humidifier or kitchen table near the product.

- Otherwise, this may result in electric shock or fire.



When there is a gas leak, do not touch the product or the power plug but ventilate immediately.

- If a spark occurs, it may cause an explosion or fire.



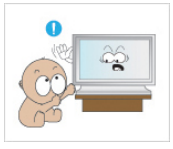
If the product has been turned on for a long time, the display panel becomes hot. Do not touch it.

- Keep the small accessories in a location out of the reach of children.



Be careful when adjusting the angle of the product or the height of the stand.

- This may result in personal injury as your hand or fingers may become caught.
- Also, if you tilt the product too far, it may fall and cause personal injury.



Do not install the product in a location low enough for children to reach.

- Otherwise, it may fall and result in personal injury.
- Since the front part of the product is heavy, install the product on a level and stable surface.



Do not put any heavy objects on the product.

- This may result in personal injury and/or damage to the product.

Introduction

Package Contents

Note

Please make sure the following items are included with your LCD Display.

If any items are missing, contact your dealer.

Contact a local dealer to buy optional items.

Note

This stand is not for the Floor Standing Type.

Unpacking



LCD Display

Manuals



Quick Setup Guide



Warranty Card

(Not available in all locations)



User's Guide

Cables



D-Sub Cable



Power Cord

Others



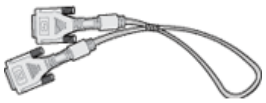




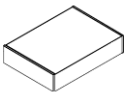
Others

Remote Control	Batteries (AAA X 2) (Not available in all locations)	Cleaning Cloth

Sold separately



DVI Cable



Wall Mount KIT



LAN Cable



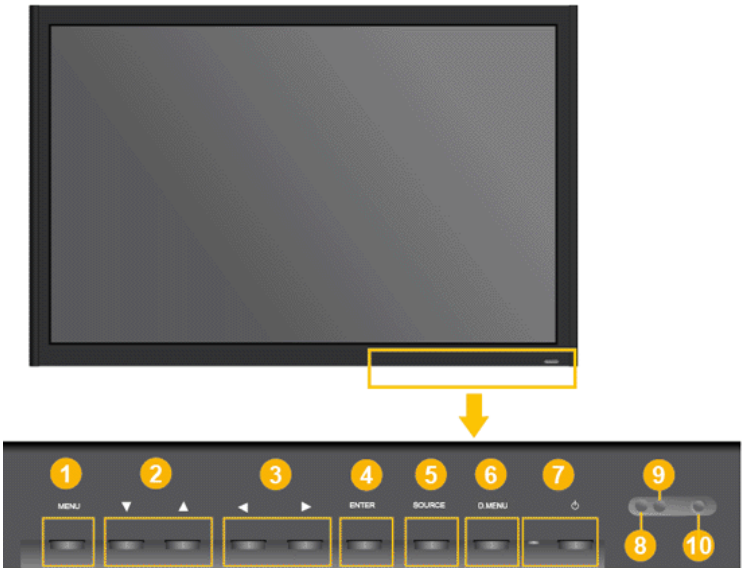
Semi Stand KIT

Note

Cleaning Cloth is only provided for highly polished black products as a product feature.

Your LCD Display

Front



1. *MENU button [MENU]*

 Opens the on-screen menu and exits from the menu. Also use to exit the OSD menu or return to the previous menu.

2. *Navigate buttons (Down-Up buttons) / Channel buttons*

 Moves from one menu item to another vertically or adjusts selected menu values.

 / When OSD is not on the screen, push the button to adjust channel.

3 *Adjust buttons (Left-Right buttons) / Volume buttons*

Moves from one menu item to another horizontally or adjusts selected menu values. When OSD is not on the screen, push the button to adjust volume.

4 *ENTER button [ENTER]*

Activates a highlighted menu item.

5 *SOURCE button [SOURCE]*

Switches from PC mode to Video mode. Changing the source is only allowed for external devices that are connected to the LCD Display at the time.

[**PC**] → [**DVI**] → [**AV**] → [**HDMI**] → [**MagicInfo**] → [**TV**]

6 *D.MENU*

Opens the on-screen D.MENU.

7 *Power button [⏻]*

Use this button for turning the LCD Display on and off.

8 *Brightness Sensor*

The product's Brightness Sensor function automatically detects the surrounding brightness using a brightness sensor and adjusts its brightness accordingly.

9 *Power indicator*

Shows PowerSaver mode by blinking green

Note

See PowerSaver described in the manual for further information regarding power saving functions. For energy conservation, turn your LCD Display OFF when it is not needed or when leaving it unattended for long periods.

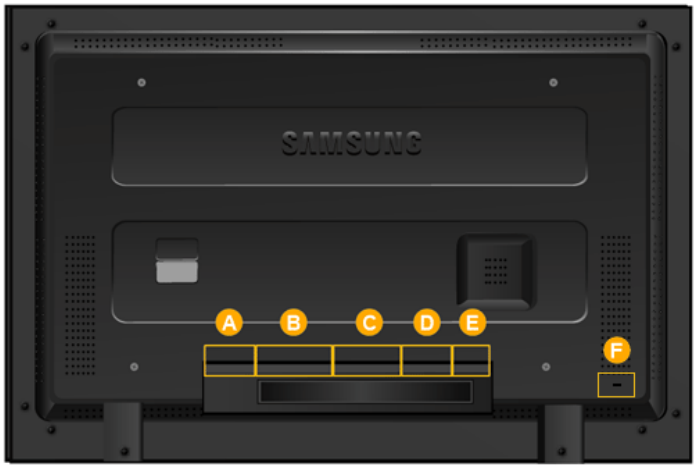
10 *Remote Control Sensor*

Aim the remote control towards this spot on the LCD Display.

Rear

Note

For detailed information concerning cable connections, refer to Connecting Cables under Setup. The LCD Display 's configuration at the back may vary slightly depending on the LCD Display model.



A



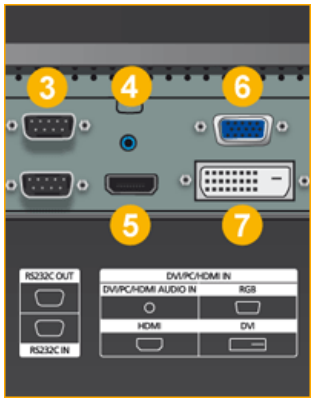
1 *POWER S/W ON [|] / OFF [O]*

Switches the LCD Display On/Off.

2 *POWER IN*

The power cord plugs into the LCD Display and the wall plug.

B



3 *RS232C OUT/IN (RS232C Serial PORT)*

MDC(Multiple Display Control) Program Port

4 *DVI / PC / HDMI IN [DVI/PC/HDMI AUDIO IN] (PC/DVI/HDMI Audio Connection Terminal (Input))*

5 *DVI / PC / HDMI IN [HDMI]*

Connect the HDMI terminal at the back of your LCD Display to the HDMI terminal of your digital output device using a HDMI cable.

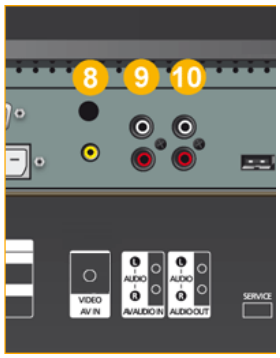
6 *DVI / PC / HDMI IN [RGB](PC Video Connection Terminal)*

Using a D-Sub Cable (15 pin D-Sub) - PC mode (Analog PC)

7 *DVI / PC / HDMI IN [DVI] (PC Video Connection Terminal)*

Using a DVI Cable (DVI-D to DVI-D) - DVI mode (Digital PC)

C

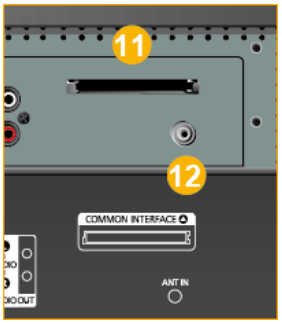


8 *AV IN [VIDEO] (VIDEO Connection Terminal)*

9 *AV AUDIO IN [L-AUDIO-R](LCD Display Audio Connection Terminal (Input))*

10 *AUDIO OUT [L-AUDIO-R] (LCD Display Audio Connection Terminal (Output))*

D



11 *COMMON INTERFACE*

This contains information on CAM inserted in the CI slot and displays it.

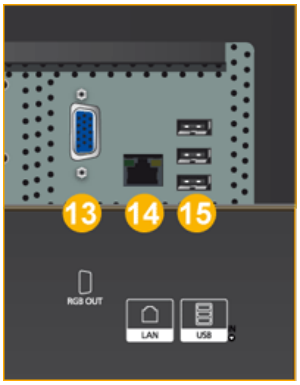
When not inserting CI CARD in some channels, **Scramble Signal** is displayed onthe screen.

You can install the CAM anytime whether the TV is ON or OFF.

12 *ANT IN*

Connect the CATV cable or TV antenna cable to the " ANT IN" port on the rear side of the LCD Display. Make sure to use a TV antenna cable (sold separately) as the antenna cable.

E



13 *RGB OUT*

14 *LAN (LAN Connection Terminal)*

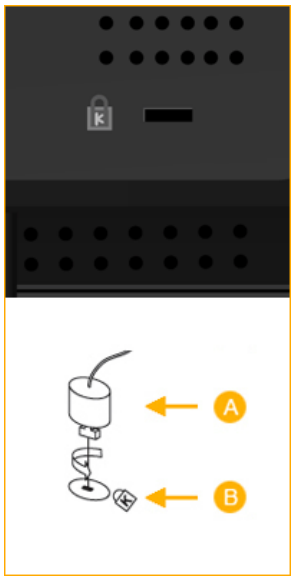
15 *USB(USB Connection Terminal)*

Keyboard / Mouse, Mass Storage Device Compatible.

Note

The number of LCD Displays that can be connected to loopout may differ depending on the cables, signal source etc. With cables where there is no degradation or signal source, up to ten LCD Displays can be connected.

F



Kensington Lock

The Kensington Lock is a device used to physically fix the system when using it in a public place. The locking device has to be purchased separately. The appearance and locking method may differ from the illustration depending on the manufacturer. Refer to the manual provided with the Kensington Lock for proper use. The locking device has to be purchased separately.

Note

The location of the Kensington Lock may be different depending on its model.

Using the Anti-Theft Kensington Lock

1. Insert the locking device into the Kensington slot on the LCD Display (B) and turn it in the locking direction (A).
2. Connect the Kensington Lock cable.
3. Fix the Kensington Lock to a desk or a heavy stationary object.

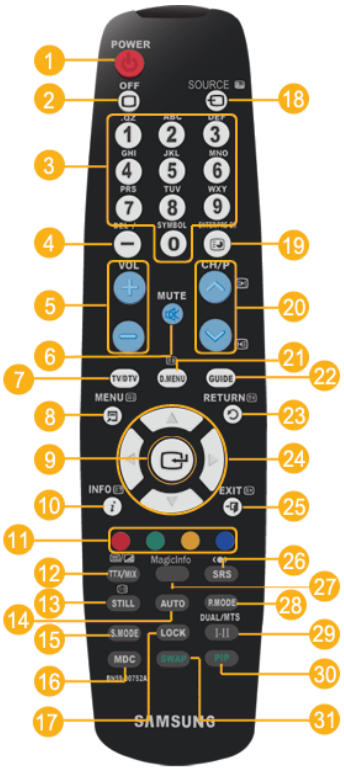
Note

See Connecting Cables for further information regarding cable connections.

Remote Control

Note

The performance of the remote control may be affected by a TV or other electronic device operating near the LCD Display , causing a malfunction due to interference with the frequency.



1. POWER
2. OFF
3. Number Buttons
4. DEL -/-- button
5. + VOL -
6. MUTE
7. TV/DTV
8. MENU
9.
10. INFO
11. COLOR BUTTONS
12. TTX/MIX
13. STILL
14. AUTO
15. S.MODE
16. MDC
17. LOCK
18. SOURCE
19. ENTER/PRE-CH
20. CH/P
21. D.MENU
22. GUIDE
23. RETURN
24. Up-Down Left-Right buttons
25. EXIT
26. SRS
27. MagicInfo
28. P.MODE
29. DUAL/MTS
30. *PIP*
31. *SWAP*

1. POWER	Turns the product On.
2. Off	Turns the product Off.
3. Number Buttons	Press to change the channel.

4. DEL -/-- button	The "-" button operates only for DTV. It is used to select MMS (multi-channel) for a DTV.
5. + VOL -	Adjusts the audio volume.
6. MUTE	Pauses (mutes) the audio output temporarily. This is displayed on the lower left corner of the screen. The audio resumes if MUTE or - VOL + is pressed in the Mute mode.
7. TV/DTV	Selects the TV and DTV mode directly.
8. MENU	Opens the on-screen menu and exits from the menu or closes the adjustment menu.
9.	Activates a highlighted menu item.
10. INFO	Current picture information is displayed on the upper left corner of the screen.
11.COLOR BUTTONS	Press to add or delete channels and to store channels to the favorite channel list in the “Channel List” menu.
12. TTX/MIX	TV channels provide written information services via teletext. - Teletext Buttons 8, 10, 13, 18, 19, 20, 21, 23, 25, For more information > TTX / MIX
13.STILL	Press the button once to freeze the screen. Press it again to un-freeze.
14.AUTO	Adjusts the screen display automatically in **PC** mode. By changing the resolution in the control panel, auto function is performed.
15. S.MODE	When pressing this button, the current mode is displayed at the bottom centre of the screen. The LCD Display has a built-in high fidelity stereo amplifier. Then press the button again to circle through available preconfigured modes. (**Standard** → **Music** → **Movie** → **Speech** → **Custom**)
16.MDC	MDC Quick Launch Button.
17.LOCK	Activates or deactivates all function keys on both the remote control and the LCD Display except for the Power and LOCK buttons.
18. SOURCE	Press the button to change the input signal SOURCE. Changing the SOURCE is only allowed for external devices that are connected to the LCD Display at the time.
19. ENTER/PRE-CH	This button is used to return to the immediately previous channel.
20.∨CH/P∧	In **TV** mode, selects TV channels.
21.D.MENU	DTV menu display
22.GUIDE	Electronic Program Guide (EPG) display.
23. RETURN	Returns to the previous menu.

24. Up-Down Left-Right buttons

Moves from one menu item to another horizontally, vertically or adjusts selected menu values.

25. EXIT

Exits from the menu screen.

26. SRS

Not Available.

27.MagicInfo

MagicInfo Quick Launch Button.

28. P.MODE

When you press this button, current picture mode is displayed on the lower center of the screen.

***AV / HDMI / TV** : P.MODE*

The LCD Display has four automatic picture settings that are preset at the factory. Then push button again to circle through available preconfigured modes. (**Dynamic → Standard → Movie → Custom**)

***PC / DVI / MagicInfo**: M/B (**MagicBright**)*

MagicBright is a feature providing the optimum viewing environment depending on the contents of the image you are watching. Then push button again to circle through available preconfigured modes. (**Entertain → Internet → Text → Custom**)

29. DUAL/MTS

DUAL-

STEREO/MONO, DUAL 1 / DUAL ll and MONO/NICAM MONO/NICAM STEREO can be operated depending on the broadcasting type by using the DUAL button on the remote control while watching TV.

MTS-

You can select MTS (Multichannel Television Stereo) mode.

	Audio Type	MTS/S_Mode	Default
FM Stereo	Mono	Mono	Manual Change
	Stereo	Mono ↔ Stereo	
	SAP	Mono ↔ SAP	Mono

30. *PIP*

Every time you press the button, a PIP screen appears.

- This fuction does not work for this LCD Display.

31.*SWAP*

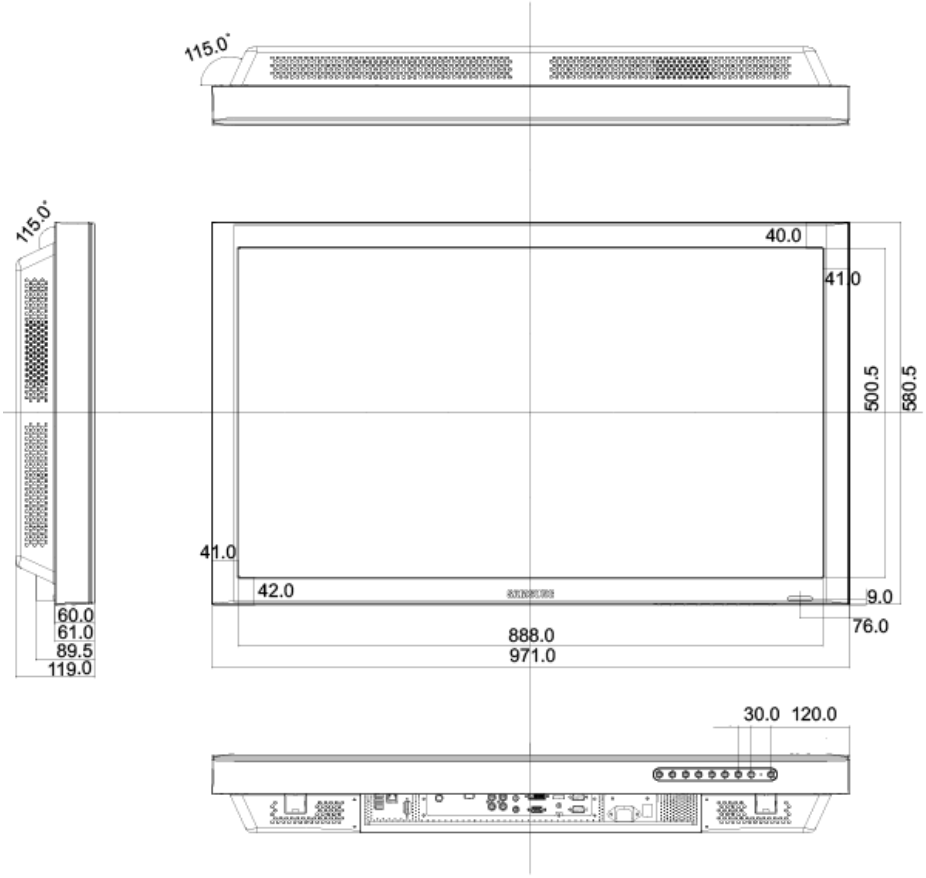
Swaps the contents of the PIP and main image. The image in the PIP window will appear on the main screen, and the main screen image will appear in the PIP window.

- This fuction does not work for this LCD Display.

Mechanical Layout (400CXn)

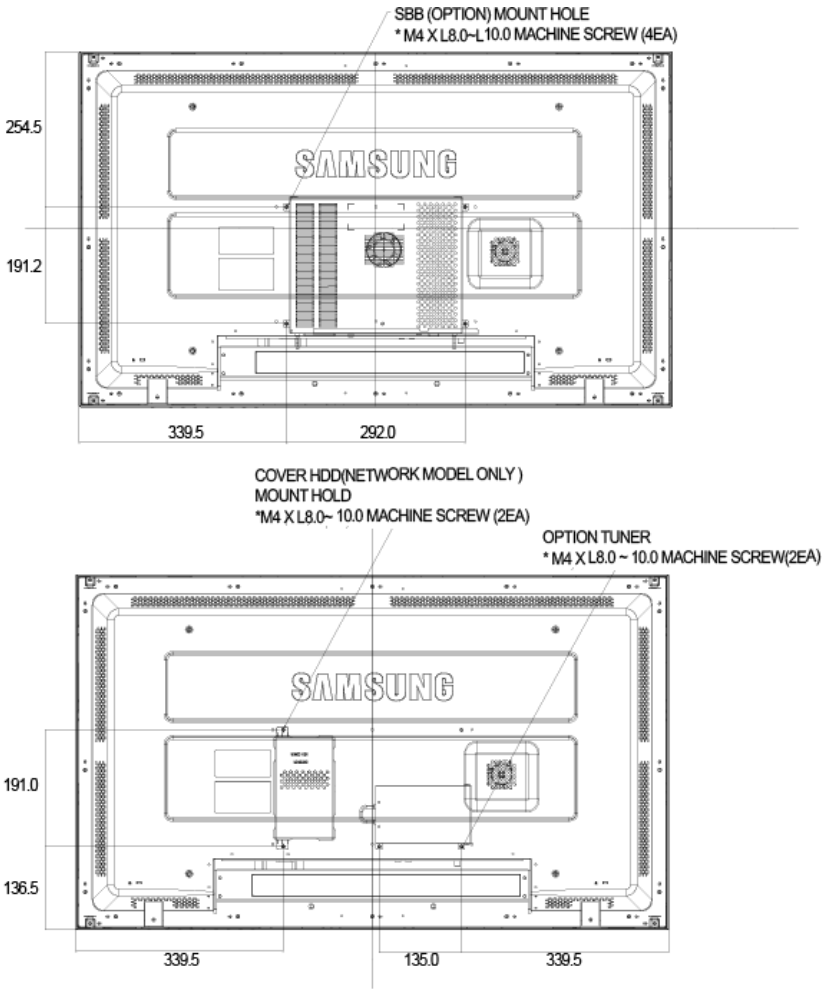
Mechanical Layout

NETWORK MODEL SIZE



LCD Display Head

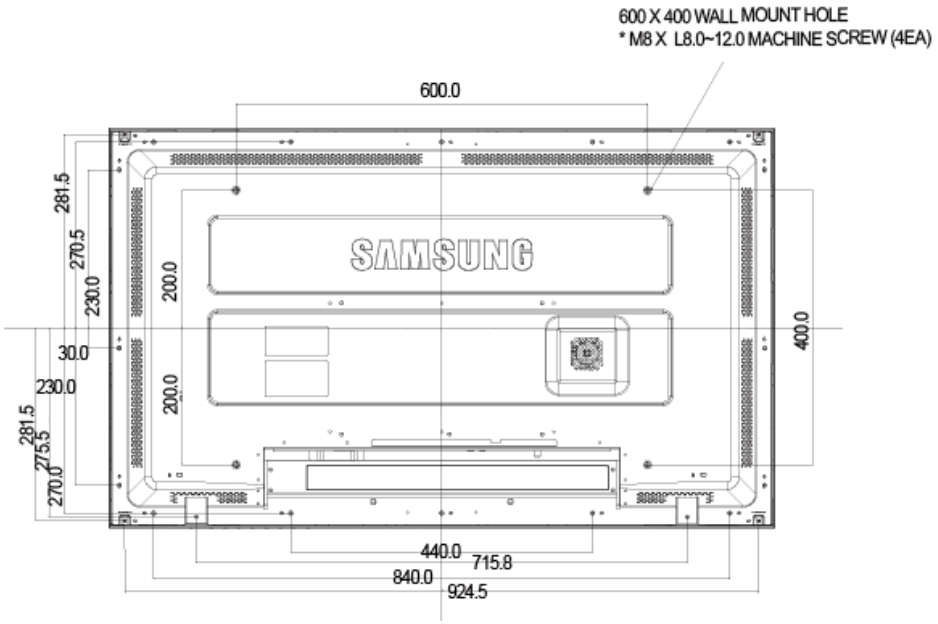
NETWORK MODEL SIZE



Installation VESA Bracket

- When installing VESA, make sure to comply with the international VESA standards.
- Purchasing VESA Bracket and Installation Information : Please contact your nearest SAMSUNG Distributor to place an order. After your order is placed, installation professionals will visit you and install the bracket.
- At least 2 persons are needed in order to move the LCD Display.
- SAMSUNG is not responsible for any product damage or any injury caused by installation at customer's discretion.

Dimensions



Notice

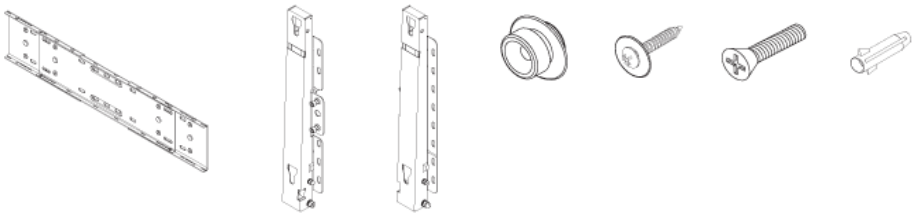
For securing the bracket on a wall, use only machine screws of 6 mm diameter and 8 to 12 mm length.

Wall Bracket Installation

- Contact a technician for installing the wall bracket.
- SAMSUNG Electronics is not responsible for any damages to the product or harm to customers when the installation is done by the customer.
- This product is for installing on cement walls. The product may not stay in place when installed on plaster or wood.

Components

Only use the components and accessories shipped with the product.



Wall Bracket(1)	Hinge(Left 1, Right 1)	Plastic Hanger (4)	Screw (A)(11)	Screw(B) (4)	Anchor (11)	

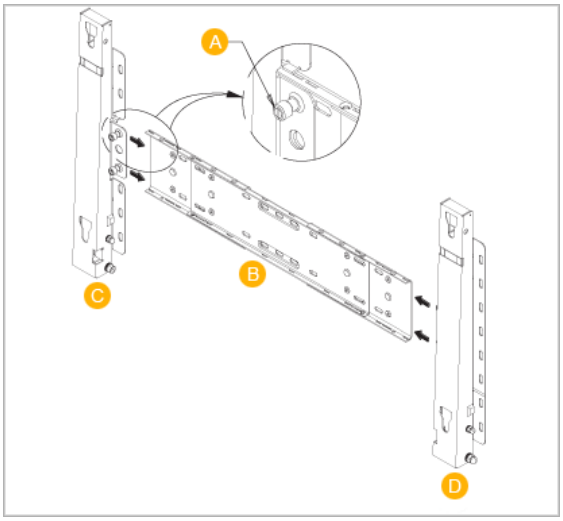
Wall Bracket Assembly

Note

There are two hinges(left and right). Use the correct one.

1. Insert and tighten the Captive Screw in the direction of the arrow.

When done, mount the wall bracket on the wall.



There are two hinges(left and right). Use the correct one.

A - Captive Screw

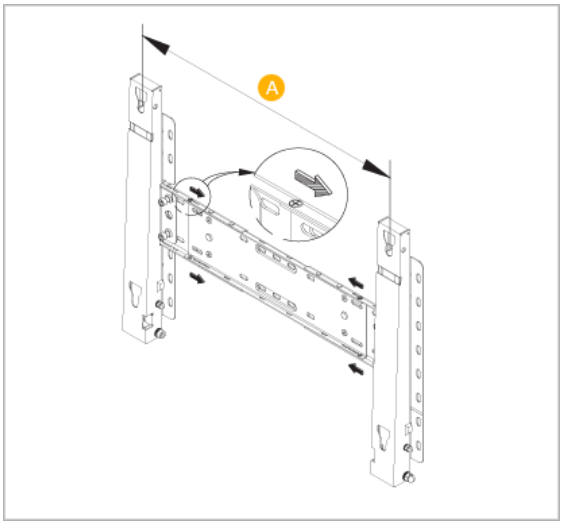
B - Wall Bracket

C - Hinge (Left)

D - Hinge (Right)

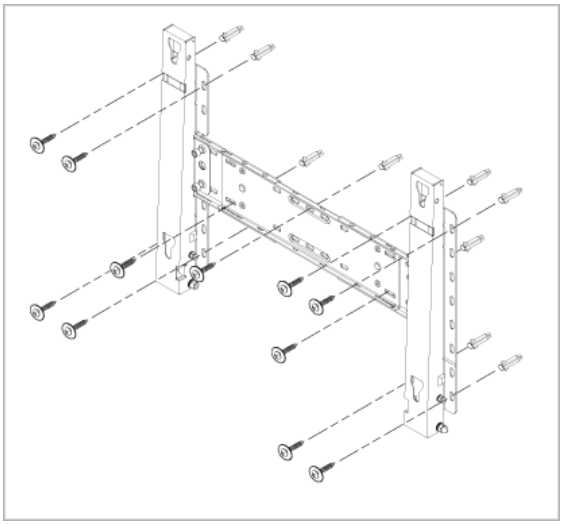
2. Before drilling into the wall, check if the length between the two locking holes at the back of the product is correct.

 If the length is too short or long, loosen all or some of the 4screws on the wall bracket to adjust the length.



A - Length between the two locking holes

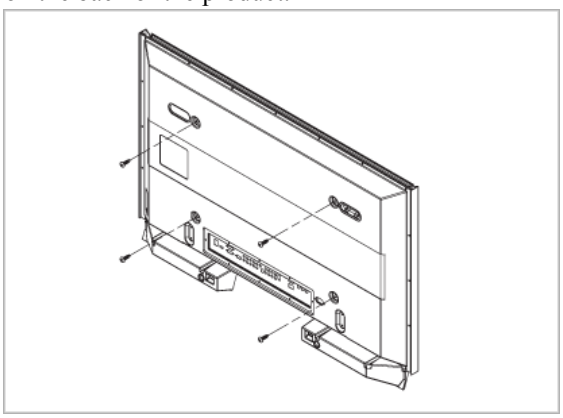
3. Check the installation diagram and mark the drill points on the wall. Use the 5.0 mm bit to drill holes deeper than 35 mm. Fix each anchor in the corresponding hole. Match each of the brackets and hinge holes to the corresponding anchor holes and insert and tighten the 11 screws A.



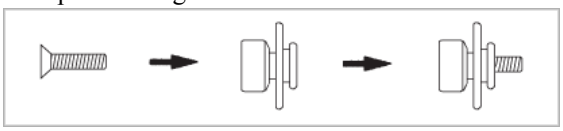
To mount the product on the wall bracket

The shape of the product may vary depending on the model. (The assemblies of the plastic hanger and the screw are the same)

1. Remove the 4 screws on the back of the product.



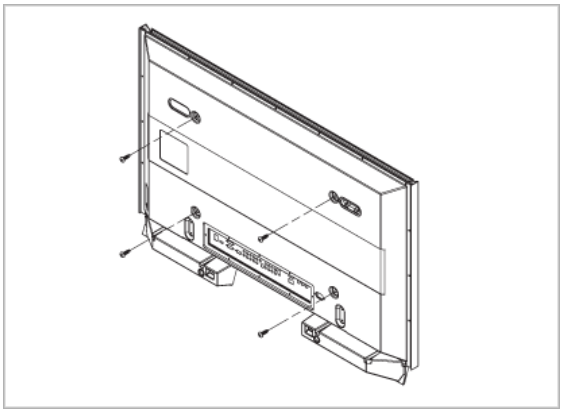
2. Insert the screw B into the plastic hanger.



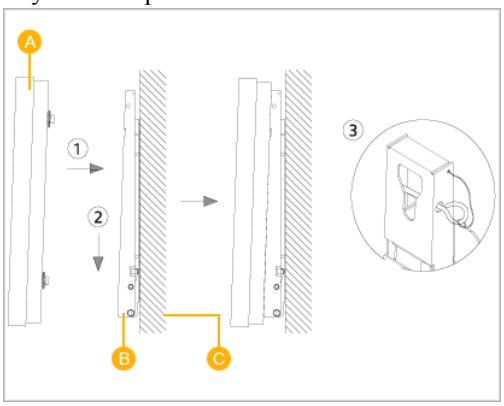
Notice

- Mount the product on the wall bracket and make sure it is properly fixed to the left and right plastic hangers.
- Be careful when installing the product on the bracket as fingers can be caught in the holes.
- Make sure the wall bracket is securely fixed to the wall, or the product may not stay in place after installation.

3. Tighten the 4 screws in step 2 (plastic hanger + screw B)to the rear holes of the product.



4. Remove safety pin (3) and insert the 4 product holders into the corresponding bracket holes (1). Then place the product(2) so that it is firmly fixed to the bracket. Make sure to re-insert and tighten the safety pin (3) to securely hold the product to the bracket.



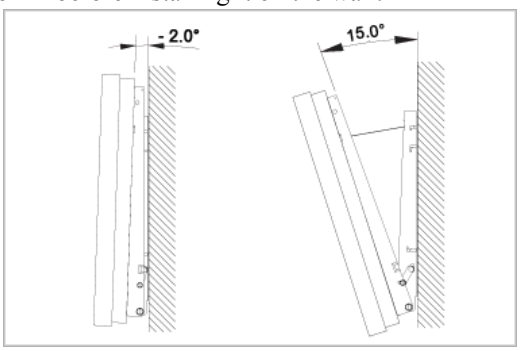
A - LCD Display

B - Wall Bracket

C - Wall

Wall Bracket Angle Adjustment

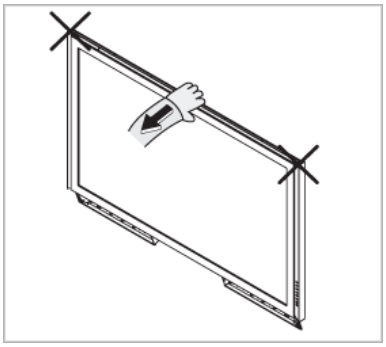
Adjust the bracket angle to -2° before installing it on the wall.



1. Fix the product to the wall bracket.

2. Hold the product at the top in the center and pull it forward (direction of the arrow) to adjust the angle.

3. You can adjust the bracket angle between -2° and 15°.

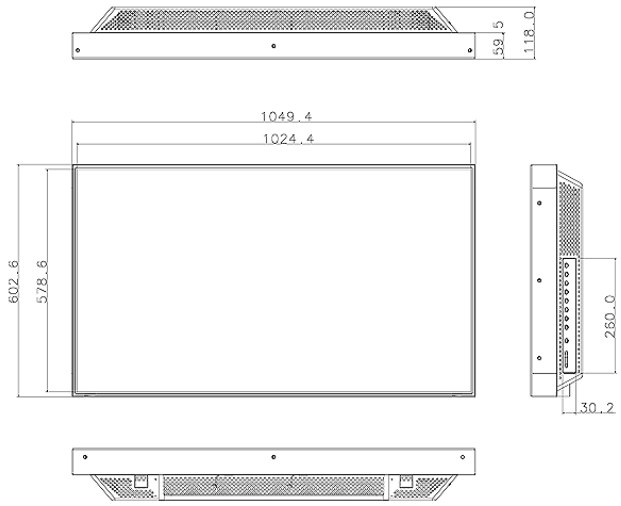


Make sure to use the top center, and not the leftor the right side of the product to adjust the angle.

Mechanical Layout (460CXN)

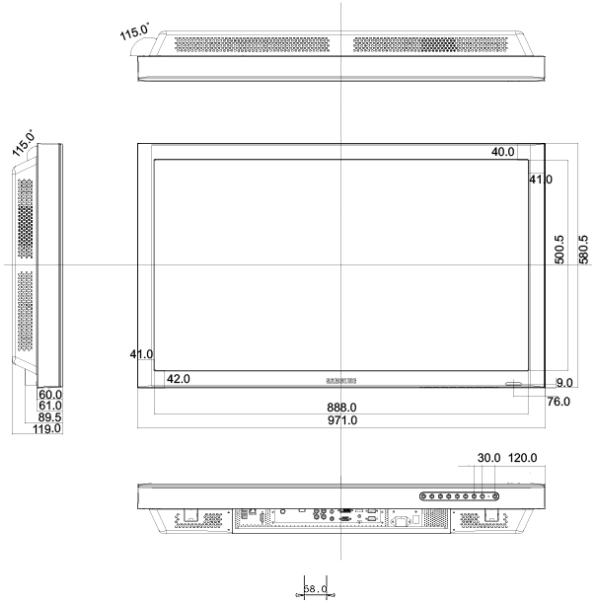
Mechanical Layout

NETWORK MODEL SIZE



LCD Display Head

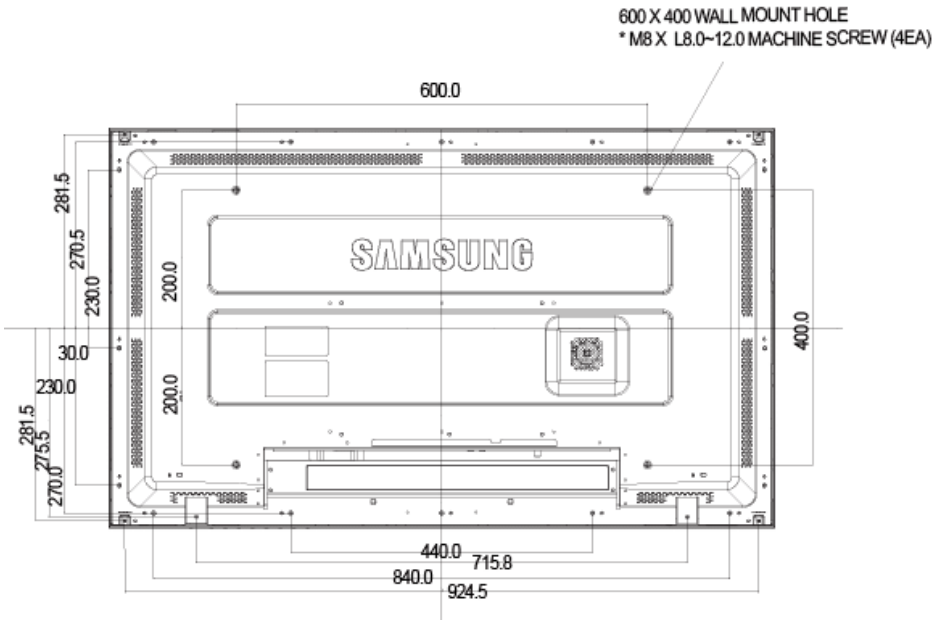
NETWORK MODEL SIZE



Installation VESA Bracket

- When installing VESA, make sure to comply with the international VESA standards.
- Purchasing VESA Bracket and Installation Information : Please contact your nearest SAMSUNG Distributor to place an order. After your order is placed, installation professionals will visit you and install the bracket.
- At least 2 persons are needed in order to move the LCD Display.
- SAMSUNG is not responsible for any product damage or any injury caused by installation at customer's discretion.

Dimensions



Notice

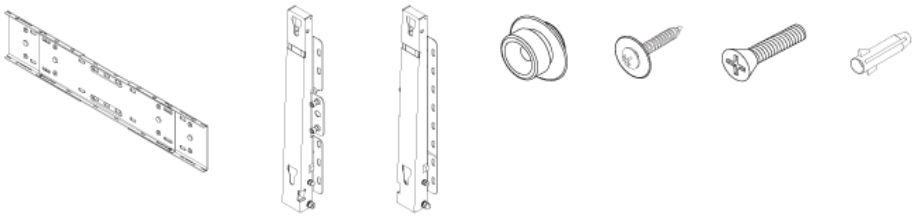
For securing the bracket on a wall, use only machine screws of 6 mm diameter and 8 to 12 mm length.

Wall Bracket Installation

- Contact a technician for installing the wall bracket.
- SAMSUNG Electronics is not responsible for any damages to the product or harm to customers when the installation is done by the customer.
- This product is for installing on cement walls. The product may not stay in place when installed on plaster or wood.

Components

Only use the components and accessories shipped with the product.



Wall Bracket(1)	Hinge(Left 1, Right 1)	Plastic Hanger (4)	Screw (A)(11)	Screw(B) (4)	Anchor (11)

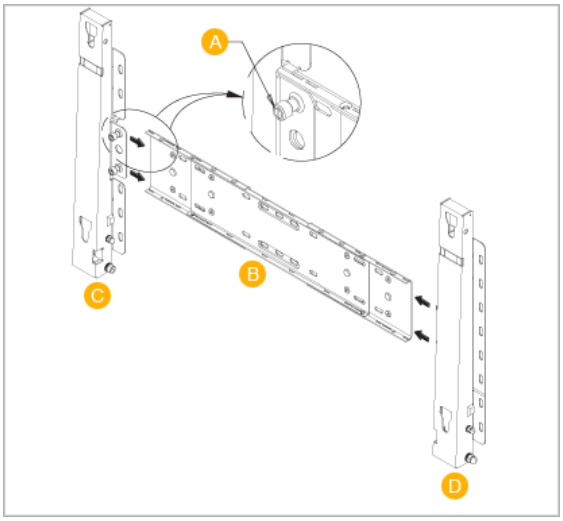
Wall Bracket Assembly

Note

There are two hinges(left and right). Use the correct one.

1. Insert and tighten the Captive Screw in the direction of the arrow.

 When done, mount the wall bracket on the wall.



There are two hinges(left and right). Use the correct one.

A - Captive Screw

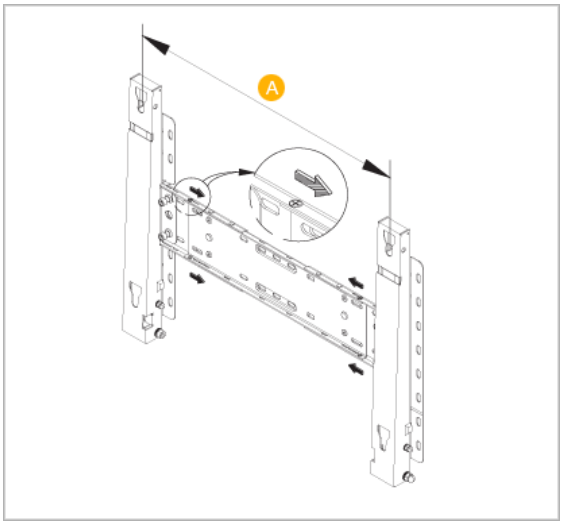
B - Wall Bracket

C - Hinge (Left)

D - Hinge (Right)

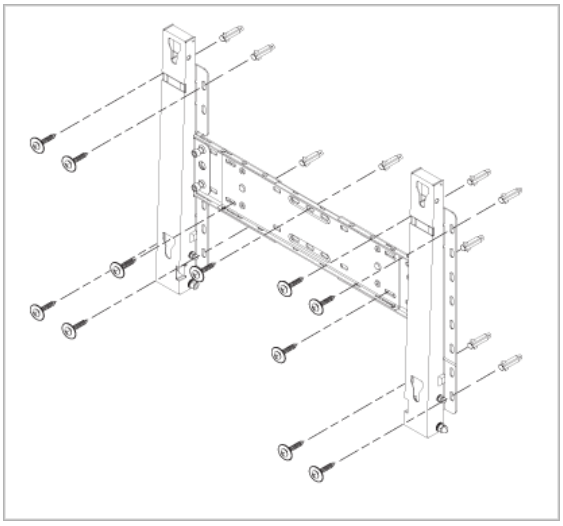
2. Before drilling into the wall, check if the length between the two locking holes at the back of the product is correct.

 If the length is too short or long, loosen all or some of the 4screws on the wall bracket to adjust the length.



A - Length between the two locking holes

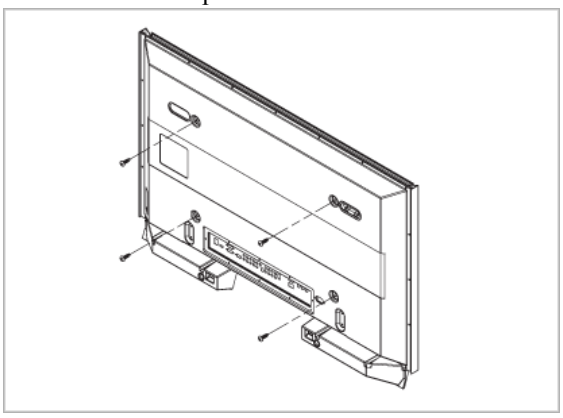
3. Check the installation diagram and mark the drill points on the wall. Use the 5.0 mm bit to drill holes deeper than 35 mm. Fix each anchor in the corresponding hole. Match each of the brackets and hinge holes to the corresponding anchor holes and insert and tighten the 11 screws A.



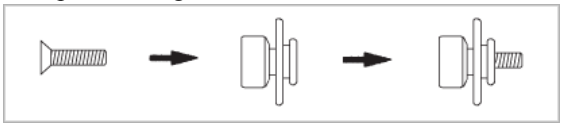
To mount the product on the wall bracket

The shape of the product may vary depending on the model. (The assemblies of the plastic hanger and the screw are the same)

1. Remove the 4 screws on the back of the product.



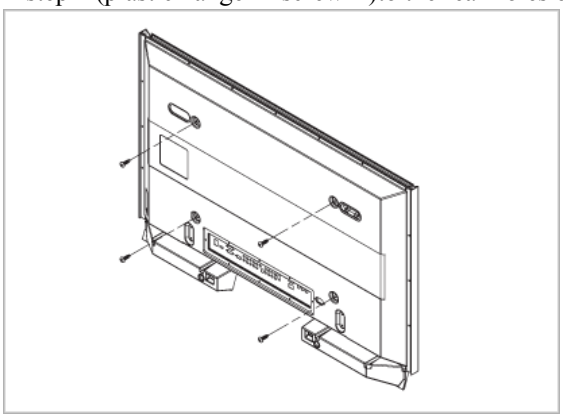
2. Insert the screw B into the plastic hanger.



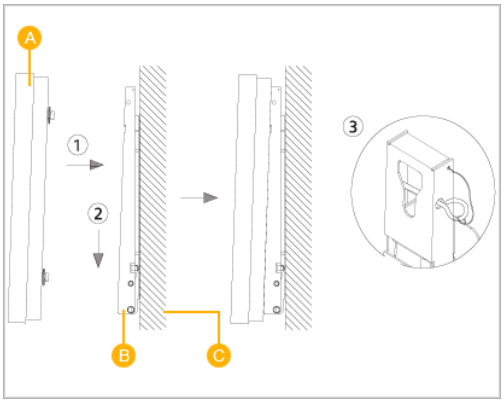
Notice

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- Be careful when installing the product on the bracket as fingers can be caught in the holes.
- Make sure the wall bracket is securely fixed to the wall, or the product may not stay in place after installation.

3. Tighten the 4 screws in step 2 (plastic hanger + screw B)to the rear holes of the product.



4. Remove safety pin (3) and insert the 4 product holders into the corresponding bracket holes (1). Then place the product(2) so that it is firmly fixed to the bracket. Make sure to re-insert and tighten the safety pin (3) to securely hold the product to the bracket.



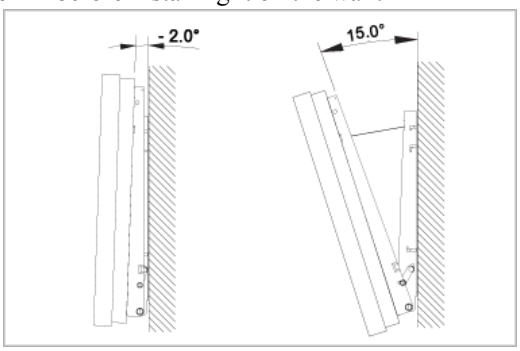
A - LCD Display

B - Wall Bracket

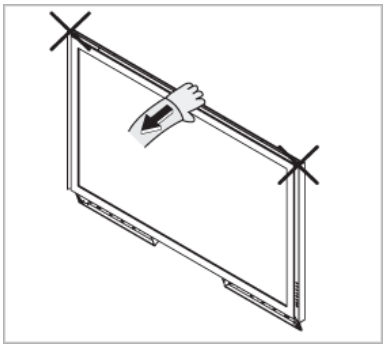
C - Wall

Wall Bracket Angle Adjustment

Adjust the bracket angle to -2° before installing it on the wall.



1. Fix the product to the wall bracket.
2. Hold the product at the top in the center and pull it forward (direction of the arrow) to adjust the angle.
3. You can adjust the bracket angle between -2° and 15°.



Make sure to use the top center, and not the leftor the right side of the product to adjust the angle.

Connections

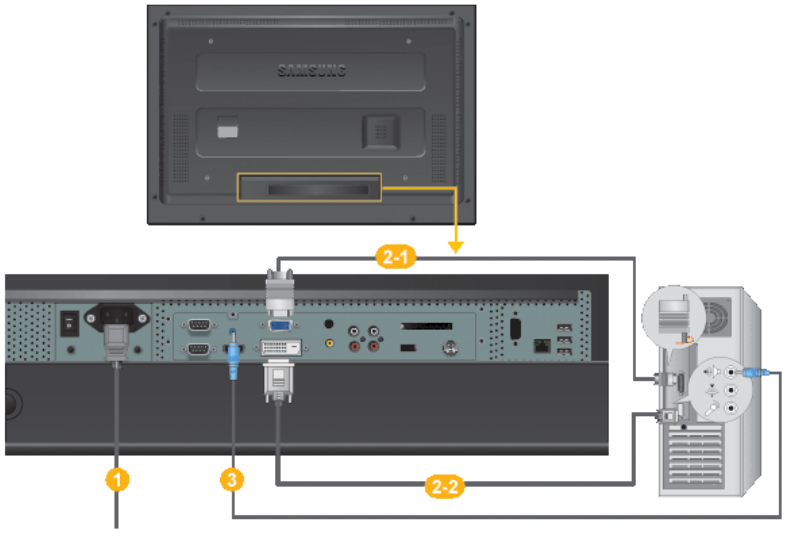
Connecting a Computer

Using a Power cord with Earth

- In the event of failure, the earth lead may cause electric shock. Make sure to wire the earth lead in correctly, before connecting the AC power. When unwiring the earth lead, make sure to disconnect the AC power in advance.

Note

AV input devices such as DVD players, VCR's or camcorders as well as your computer can be connected to the LCD Display. For detailed information on connecting AV input devices, refer to the contents under Adjusting Your LCD Display.



1. Connect the power cord for your LCD Display to the power port on the back of the LCD Display. Trun on the power switch.
2. There are 2 ways to connect the D-sub to your LCD Display. Choose one of the following:

 2-1 Using the D-sub (Analog) connector on the video card.

 - Connect the D-sub to the 15-pin, RGB port on the back of your LCD Display and the 15 pin D-sub Port on the computer.



 2-2 Using the DVI (Digital) connector on the video card.

 - Connect the DVI Cable to the DVI(HDCP) port on the back of your LCD Display and the DVI port on the computer.



3 Connect the audio cable for your LCD Display to the audio port on the back of your computer.

Note

- Turn on both your computer and the LCD Display.
- The DVI cable is optional.
- Contact a local SAMSUNG Electronics Service Center to buy optional items.

Connecting to Other devices

Using a Power cord with Earth

- In the event of failure, the earth lead may cause electric shock. Make sure to wire the earth lead in correctly, before connecting the AC power. When unwiring the earth lead, make sure to disconnect the AC power in advance.

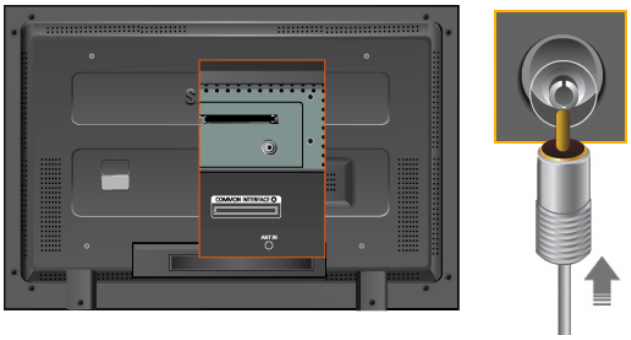
Note

AV input devices such as DVD players, VCR's or camcorders as well as your computer can be connected to the LCD Display. For detailed information on connecting AV input devices, refer to the contents under Adjusting Your LCD Display.

Connecting TV

Note

You may view television programs on the LCD Display if it is connected to an antenna or CATV cable without installing any separate TV reception hardware or software on your computer.



1. Connect the CATV cable or TV antenna cable to the "ANT IN" port on the rear side of the LCD Display.

 Make sure to use a TV antenna cable (sold separately) as the antenna cable.

 - *When using an interior antenna terminal:*

 Check the antenna terminal on the wall first and connect the antenna cable.

- *When using an outdoor antenna:*

 If you are using an outdoor antenna, use a professional for installation if possible.

- *To connect the RF cable to the antenna input terminal:*

 Keep the copper wire portion of the RF cable straight.

2. Turn on the LCD Display.
3. Select TV using the TV / DTV.
4. Select a desired TV channel.

Note

Is weak signal causing poor reception?

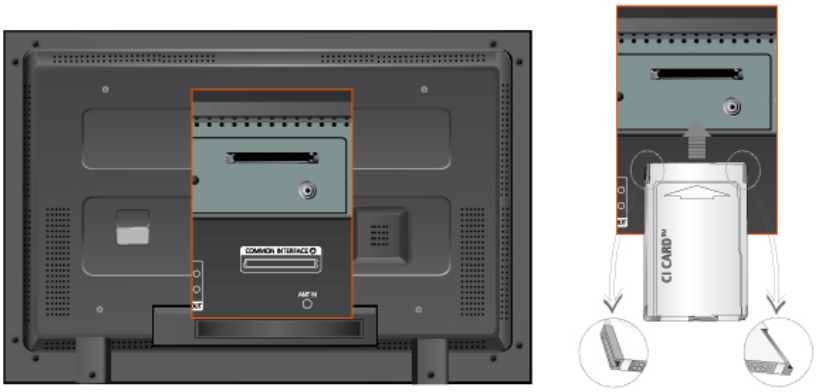
Purchase and install a signal amplifier for better reception.

Connecting COMMON INTERFACE

Note

You can install the CAM anytime whether the TV is ON or OFF.

Purchase the CI CAM module by visiting your nearest dealer or by phone.

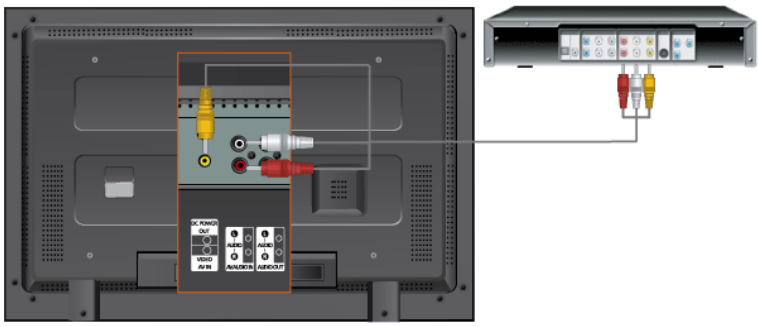


1. Insert the CI CARD into the CAM in the direction of the arrow until it fits.
2. Insert the CAM with the CI CARD installed into the common interface slot.

 (Insert the CAM in the direction of the arrow, right up to the end so that it is parallel with the slot.)

3. Check if you can see a picture on a scrambled signal channel.

Connecting AV Devices

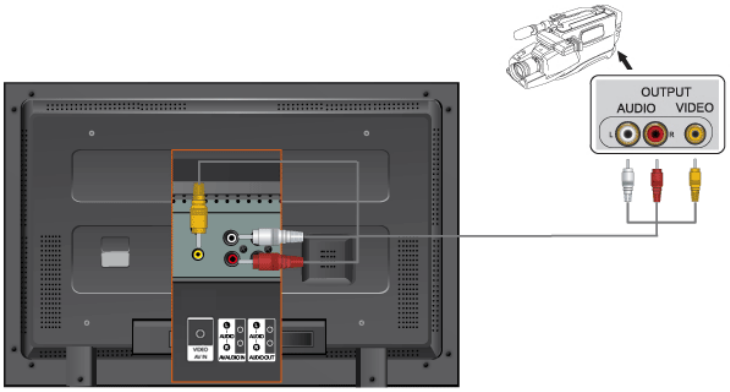


1. Connect the port of the DVD, VCR (DVD / DTV Set-Top Box) to the [R-AUDIO-L] port of the LCD Display.
2. Then, start the DVD, VCR or Camcorders with a DVD disc or tape inserted.
3. Select **AV** using the SOURCE .

Note

The LCD Display has AV connection terminals to connect AV input devices like DVDs, VCRs or Camcorders. You may enjoy AV signals as long as the LCD Display is turned on.

Connecting to a Camcorder

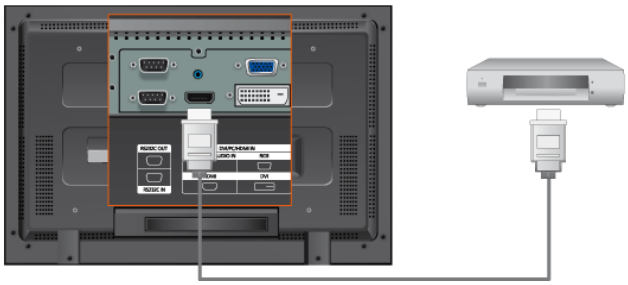


1. Locate the A/V output jacks on the camcorder. They are usually found on the side or back of the camcorder. Connect a set of audio cables between the AUDIO OUTPUT jacks on the camcorder and the AV AUDIO IN [L-AUDIO-R] on the LCD Display.
2. Connect a video cable between the VIDEO OUTPUT jack on the camcorder and the AV IN [VIDEO] on the LCD Display.
3. Select **AV** for the Camcorder connection using the Source button on the front of the LCD Display or on the remote control.
4. Then, start the Camcorders with a tape inserted.

Note

The audio-video cables shown here are usually included with a Camcorder. (If not, check your local electronics store.) If your camcorder is stereo, you need to connect a set of two cables.

Connecting Using a HDMI Cable

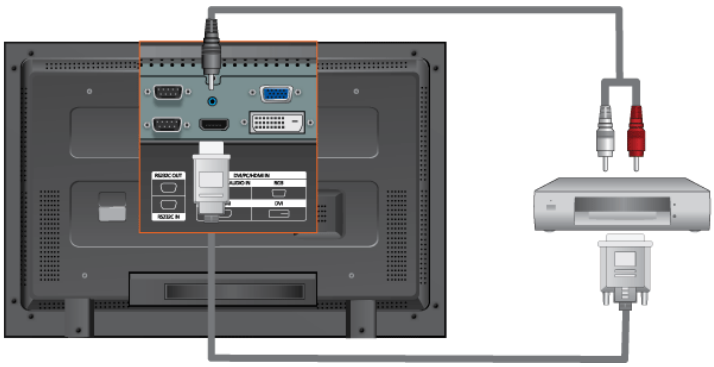


Note

- Input devices such as digital DVD are connected to the HDMI terminal of the LCD Display using the HDMI cable.

- You cannot connect a PC to the HDMI terminal.

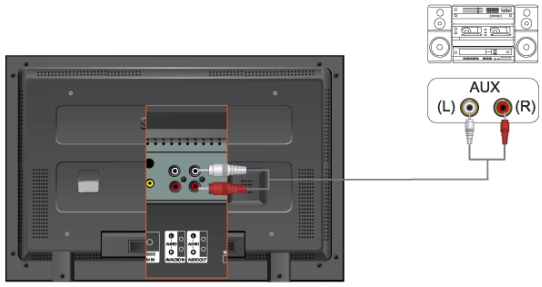
Connecting Using a DVI to HDMI Cable



Note

- Connect the DVI output terminal of a digital output device to the HDMI terminal of the LCD Display using a DVI to HDMI cable.
- Connect the red and white jacks of an RCA to stereo (for PC) cable to the same colored audio output terminals of the digital output device, and connect the opposite jack to the HDMI / PC / DVI-D AUDIO IN terminal of the LCD Display.

Connecting to an Audio System



Note

- Connect a set of audio cables between the AUX L, R jacks on the AUDIO SYSTEM and AUDIO OUT [L-AUDIO-R] on LCD Display.

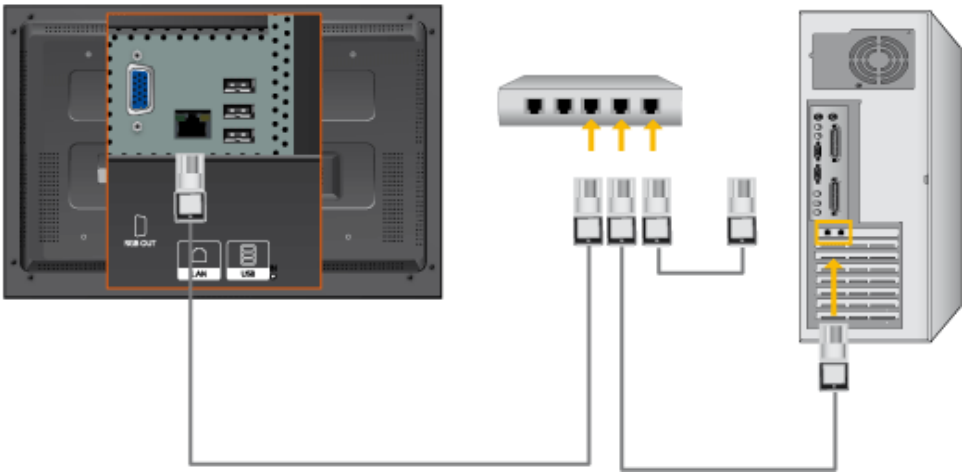
Connecting a LAN Cable

Using a Power cord with Earth

- In the event of failure, the earth lead may cause electric shock. Make sure to wire the earth lead in correctly, before connecting the AC power. When unwiring the earth lead, make sure to disconnect the AC power in advance.

Note

AV input devices such as DVD players, VCR's or camcorders as well as your computer can be connected to the LCD Display. For detailed information on connecting AV input devices, refer to the contents under Adjusting Your LCD Display.



Note

Connect the LAN cable.

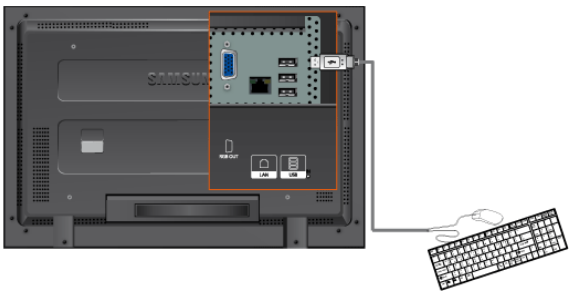
Connecting a USB device

Using a Power cord with Earth

- In the event of failure, the earth lead may cause electric shock. Make sure to wire the earth lead in correctly, before connecting the AC power. When unwiring the earth lead, make sure to disconnect the AC power in advance.

Note

AV input devices such as DVD players, VCR's or camcorders as well as your computer can be connected to the LCD Display. For detailed information on connecting AV input devices, refer to the contents under Adjusting Your LCD Display.



Note

You can connect USB devices such as a mouse or keyboard.

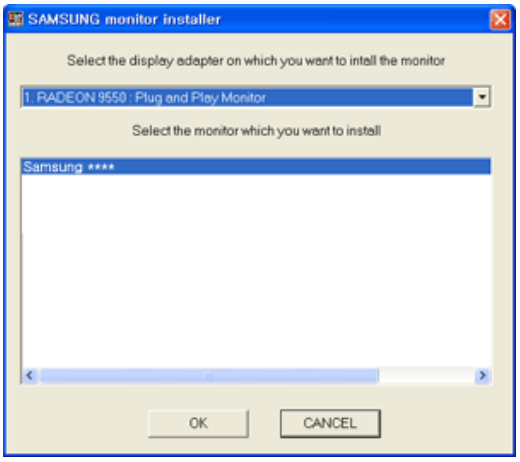
Using the Software

Monitor Driver

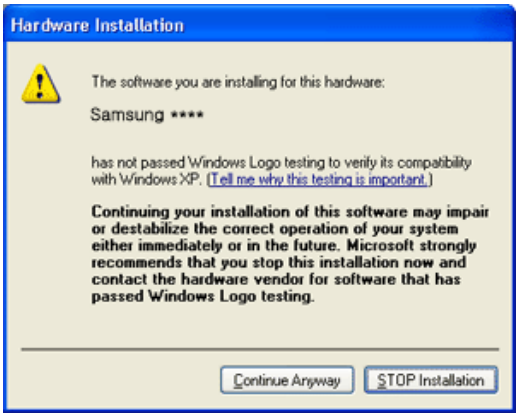
> **Note**
>
> When prompted by the operating system for the monitor driver, insert the CD-ROM included with this monitor. Driver installation is slightly different from one operating system to another. Follow the directions appropriate for the operating system you have.
>
> Prepare a blank disk and download the driver program file at the Internet web site shown here.
> **Internet web site :**
>
> http://www.samsung.com/ (Worldwide)

Installing the Monitor Driver (Automatic)

1. Insert CD into the CD-ROM drive.
2. Click "Windows".
3. Choose your monitor model in the model list, then click the "OK" button.



4. If you can see following message window, then click the "Continue Anyway" button. Then click "OK" button (Microsoft® Windows® XP/2000 Operating System).



Note

This monitor driver is under certifying MS logo, and this installation doesn't damage your system.

The certified driver will be posted on Samsung Monitor homepage.

http://www.samsung.com/

Installing the Monitor Driver (Manual)

Microsoft® Windows Vista™, Operating System

1. Insert your Manual CD into your CD-ROM drive.
2. Click (Start) and "Control Panel". Then, double-click on "Appearance and Personalization".




3. Click "Personalization" and then "Display Settings".

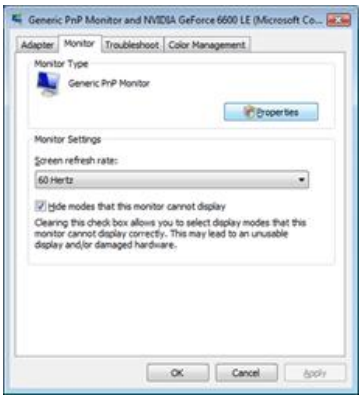



4. Click "Advanced Settings...".



5. Click "Properties" in the "Monitor" tab. If the "Properties" button is deactivated, it means the configuration for your monitor is completed. The monitor can be used as is.

 If the message "Windows needs..." is displayed, as shown in the figure below, click "Continue".



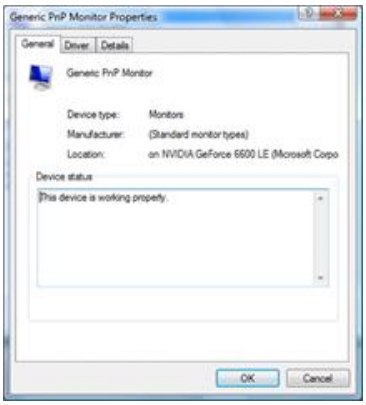


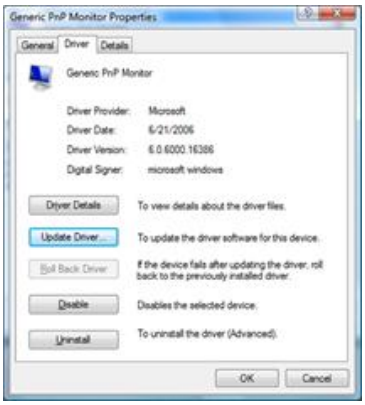
Note

This monitor driver is under certifying MS logo, and this installation doesn't damage your system.

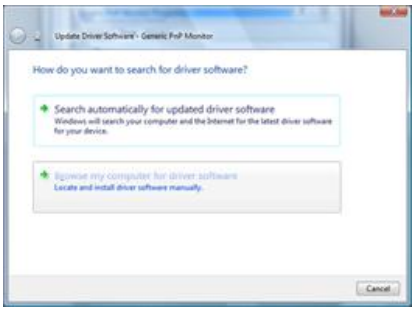
The certified driver will be posted on Samsung Monitor homepage.

6. Click "Update Driver..." in the "Driver" tab.



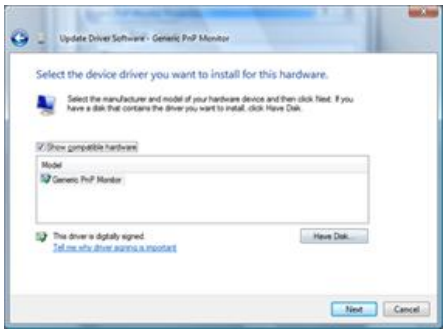


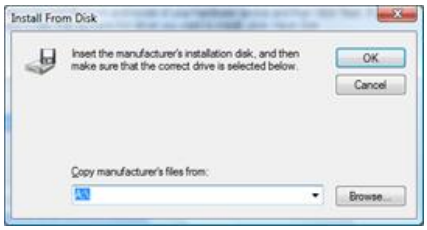
7. Check the "Browse my computer for driver software" checkbox and click "Let me pick from a list of device drivers on my computer".



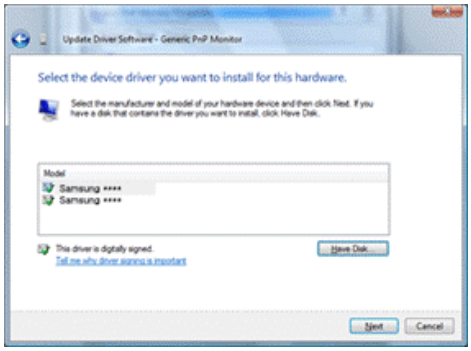


8. Click "Have Disk...” and select the folder (for example, D:\Drive) where the driver setup file is located, and click "OK".

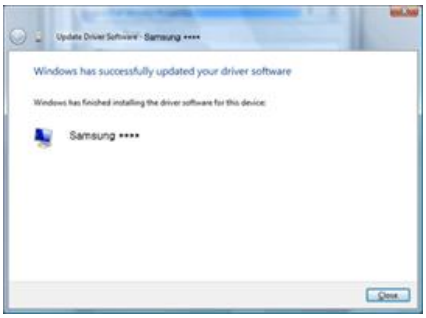


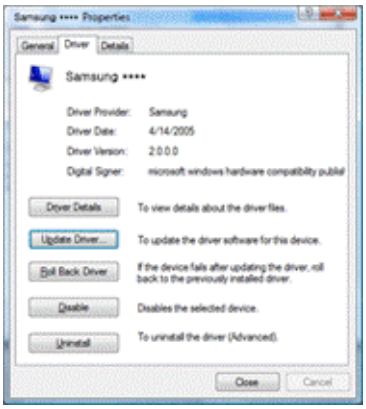


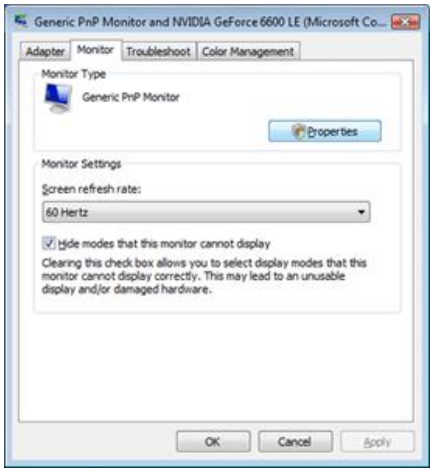
9. Select the model that matches your monitor from the list of monitor models on the screen, and click "Next".

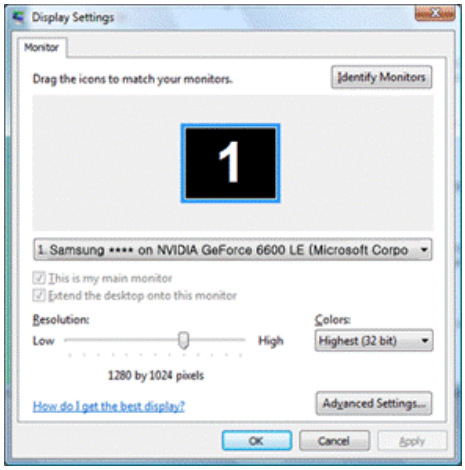


10. Click "Close" → "Close" → "OK" → "OK" on the following screens displayed in sequence.







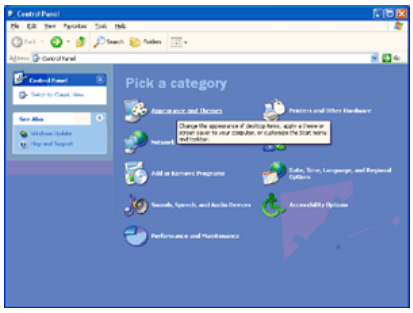


Microsoft® Windows® XP Operating System

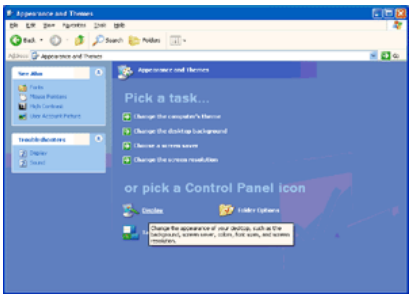
1. Insert CD into the CD-ROM drive.

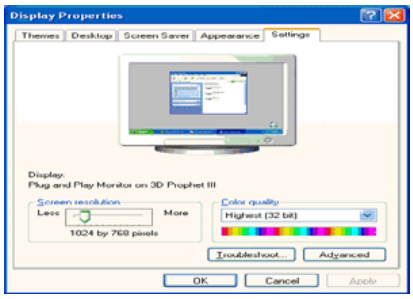
2. Click "Start" → "Control Panel" then click the "Appearance and Themes" icon.



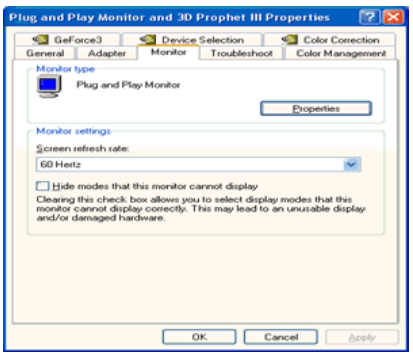


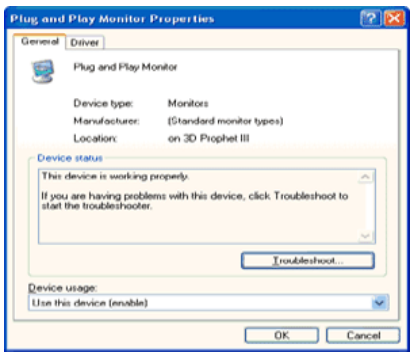
3. Click "Display" icon and choose the "Settings" tab then click "Advanced...".



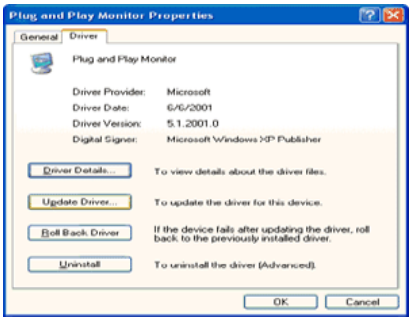


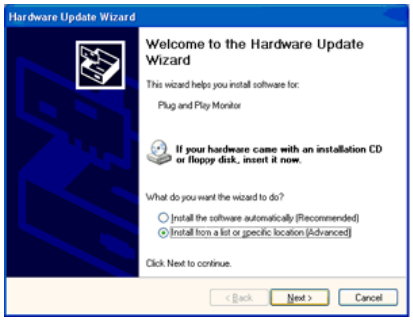
4. Click the "Properties" button on the "Monitor" tab and select "Driver" tab.



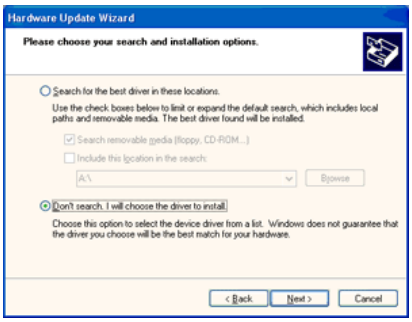


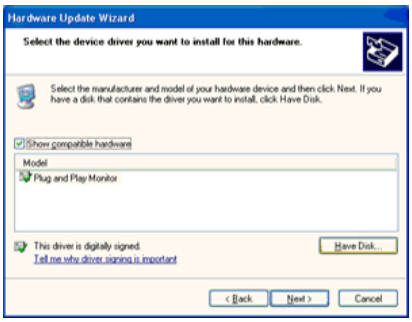
5. Click "Update Driver..." and select "Install from a list or..." then click "Next" button.



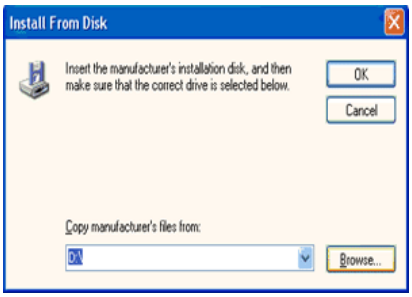


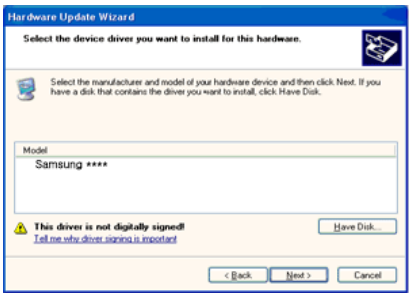
6. Select "Don't search, I will..." then click "Next" and then click "Have disk".



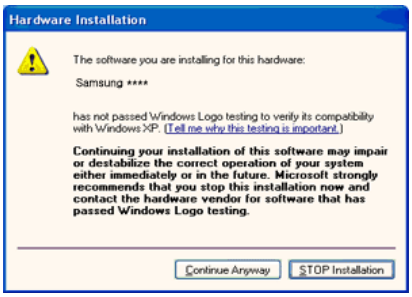


7. Click the "Browse" button then choose A:(D:\Driver) and choose your monitor model in the model list and click the "Next" button.





8. If you can see following message window, then click the "Continue Anyway" button. Then click "OK" button.



Note

This monitor driver is under certifying MS logo, and this installation doesn't damage your system.

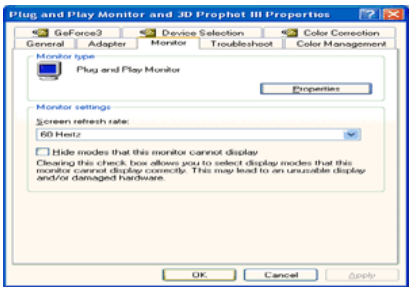
The certified driver will be posted on Samsung Monitor homepage.

http://www.samsung.com/

9. Click the "Close" button then click "OK" button continually.







10. Monitor driver installation is completed.

Microsoft® Windows® 2000 Operating System

When you can see "Digital Signature Not Found" on your monitor, follow these steps.

1. Choose "OK" button on the "Insert disk" window.
2. Click the "Browse" button on the "File Needed" window.
3. Choose A:(D:\Driver) then click the "Open" button and then click "OK" button.

How to install

1. Click "Start", "Setting", "Control Panel".
2. Double click the "Display" icon.
3. Select the "Settings" tab and click "Advanced Properties" button.
4. Choose "Monitor".

 Case1 : If the "Properties" button is inactive, it means your monitor is properly configured. Please stop installation

 Case2 : If the "Properties" button is active, click the "Properties" button then follow next steps continually.
5. Click "Driver" and then click on "Update Driver..." then click on the "Next" button.
6. Choose "Display a list of the known drivers for this device so that I can choose a specific driver" then click "Next" and then click "Have disk".
7. Click the "Browse" button then choose A:(D:\Driver).
8. Click the "Open" button, then click "OK" button.
9. Choose your monitor model and click the "Next" button then click "Next" button.
10. Click the "Finish" button then the "Close" button.

 If you can see the "Digital Signature Not Found" window then click the "Yes" button. And click the "Finish" button then the "Close" button.

Microsoft® Windows® Millennium Operating System

1. Click "Start", "Setting", "Control Panel".
2. Double click the "Display" icon.
3. Select the "Settings" tab and click "Advanced Properties" button.

4. Select the "Monitor" tab.
5. Click the "Change" button in the "Monitor Type" area.
6. Choose "Specify the location of the driver".
7. Choose "Display a list of all the driver in a specific location..." then click "Next" button.
8. Click the "Have Disk" button.
9. Specify A:\(D:\driver) then click "OK" button.
10. Select "Show all devices" and choose the monitor that corresponds to the one you connected to your computer and click "OK".
11. Continue choosing "Close" button and "OK" button until you close the Display Properties dialogue box.

Microsoft® Windows® NT Operating System

1. Click "Start", "Settings", "Control Panel", and then double-click "Display" icon.
2. In Display Registration Information window, click Settings Tab and then click "All Display Modes".
3. Select a mode that you wish to use (Resolution, Number of colors and Vertical frequency) and then click "OK".
4. Click "Apply" button if you see the screen working normally after clicking "Test". If the screen is not normal, change to a different mode (lower mode of resolution, colors or frequency).

Note

If there is no Mode at All Display Modes, select the level of resolution and vertical frequency by referring to the Preset Timing Modes in the user guide.

Linux Operating System

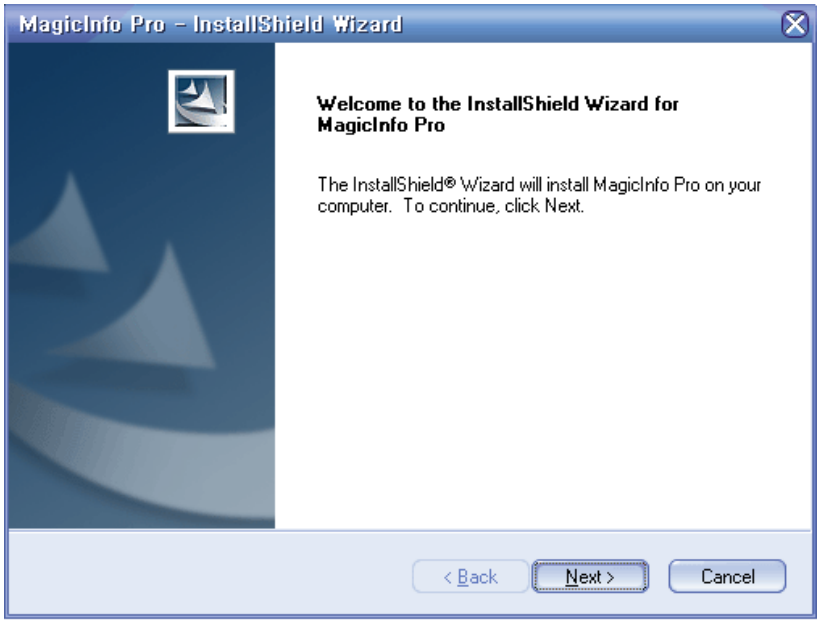
To execute X-Window, you need to make the X86Config file, which is a type of system setting file.

1. Press "Enter" at the first and the second screen after executing the X86Config file.
2. The third screen is for setting your mouse.
3. Set a mouse for your computer.
4. The next screen is for selecting a keyboard.
5. Set a Keyboard for your computer.
6. The next screen is for setting your monitor.
7. First of all, set a horizontal frequency for your monitor. (You can enter the frequency directly.)
8. Set a vertical frequency for your monitor. (You can enter the frequency directly.)
9. Enter the model name of your monitor. This information will not affect the actual execution of X-Window.
10. You have finished setting up your monitor. Execute X-Window after setting other requested hardware.

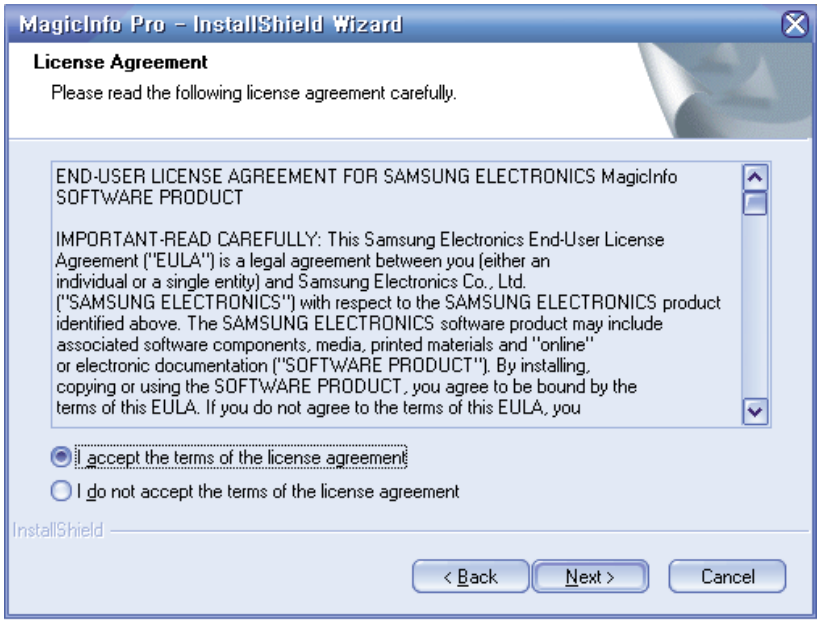
Installation MagicInfo Pro

Installation

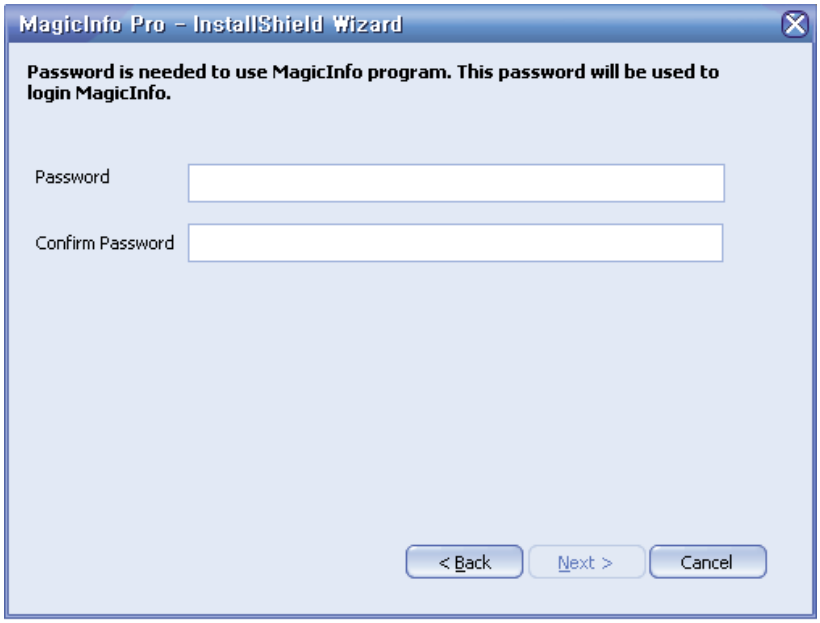
1. Insert CD into the CD-ROM drive.
2. Click the MagicInfo Pro installation file.
3. When the Install Shield Wizard window appears, click "Next."



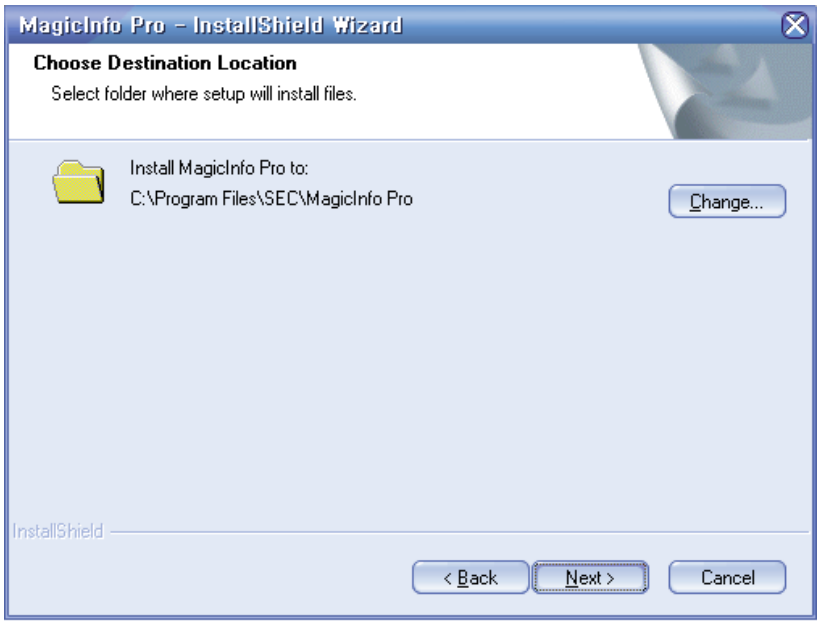
4. Select "I agree to the terms of the license agreement" to accept the terms of use.



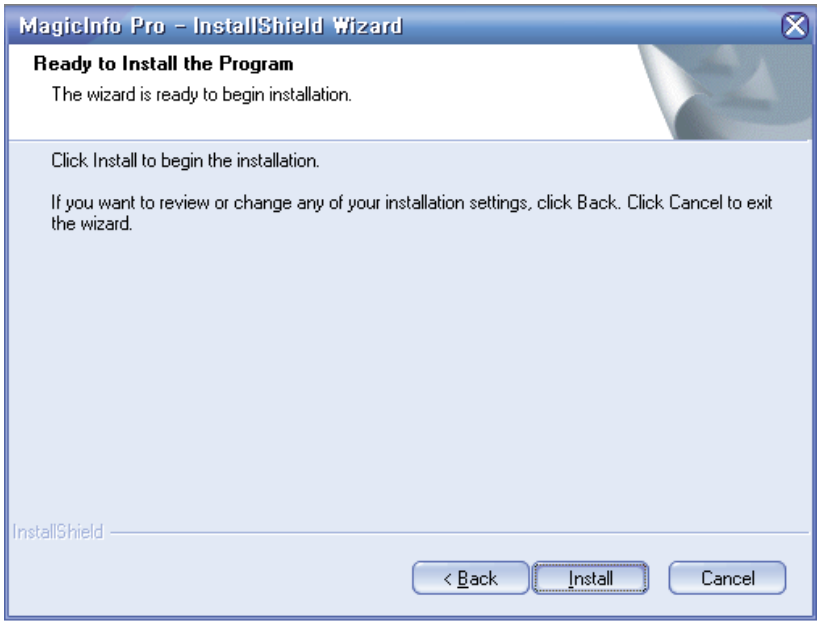
5. You are required to log in to the MagicInfo Pro Server program. Please enter the password to login. The password cannot be changed when you are logged in.



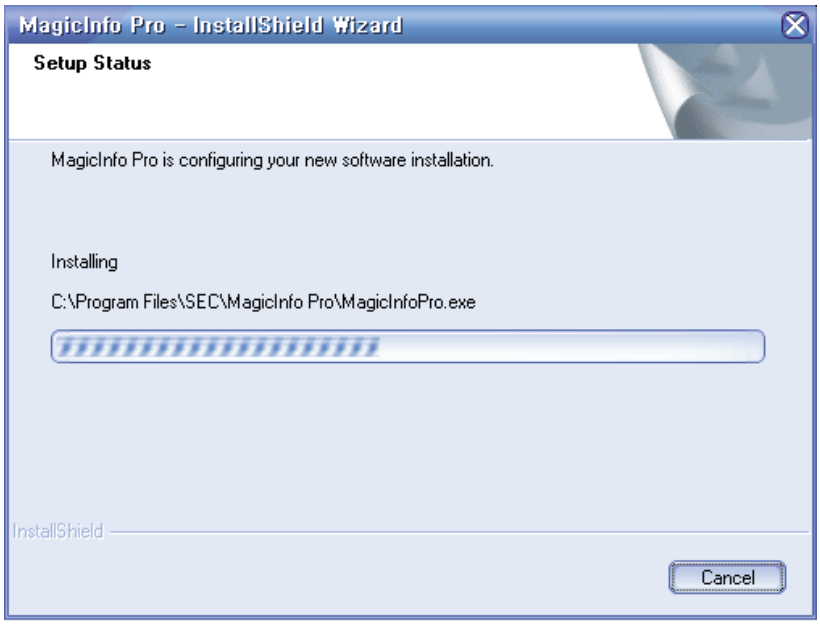
6. Choose a folder to install the MagicInfo Pro program.



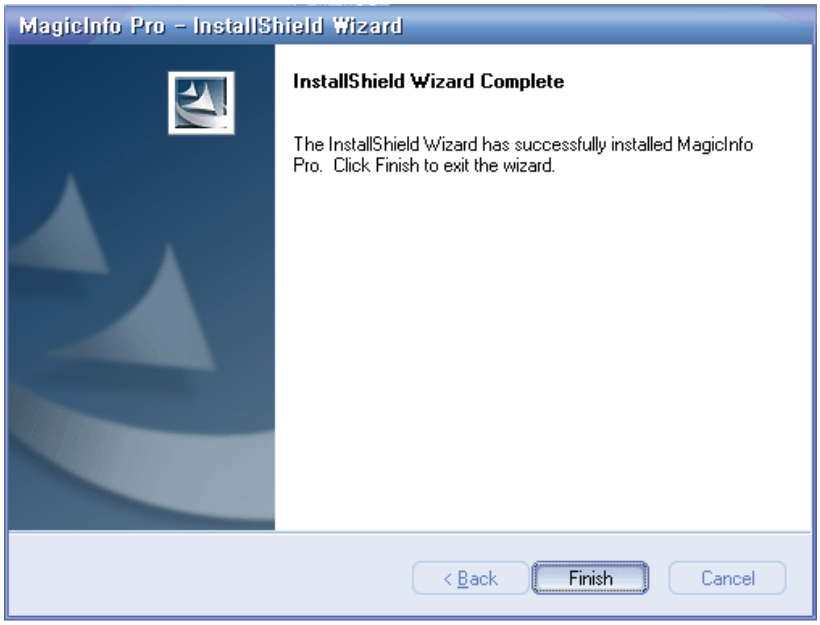
7. Click "Install."



8. The "Setup Status" window appears.



9. It is recommended restarting the system for the normal operation of the MagicInfo Pro Server program. Click "Finish."



10. When the installation is complete, the MagicInfo Pro executable icon appears on your desktop.



11. Double-click the icon to start the program.

System Requirements

	CPU	RAM	Ethernet	OS	Application
Minimum	P1.8	256M	100M/1G	Windows XP Windows 2000 (Service Pack 4)	WMP 9 or later
Recommended	P3.0Ghz	512M			

Adjusting the LCD Display

Input

Available Modes

- **PC / DVI**
- **AV**
- **HDMI**
- **MagicInfo**
- **TV**

Source List P A H M T

MENU → ENTER → [**Input**] → ENTER → [**Source List**]



→ ▲ , ▼ → ENTER

Use to select **PC**, **DVI** or other external input sources connected to the LCD Display. Use to select the screen of your choice.

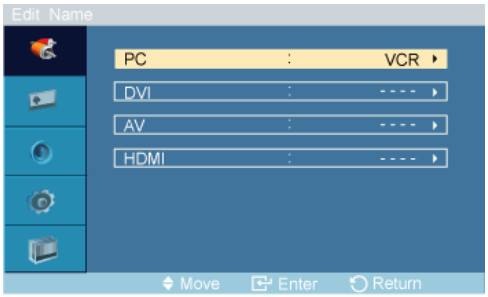
1. **PC**
2. **DVI**
3. **AV**
4. **HDMI**
5. **MagicInfo**
6. **TV**

Note

- The direct button on the remote control is the 'SOURCE' button.
- For **PC** and **DVI**, this is deactivated if the cable is disconnected.

Edit Name P A H M T

MENU → ENTER → [**Input**] → ▼ → [**Edit Name**]



→ ▲ , ▼ → ENTER

Name the input device connected to the input jacks to make your input source selection easier.

1. **PC**
2. **DVI**
3. **AV**
4. **HDMI**

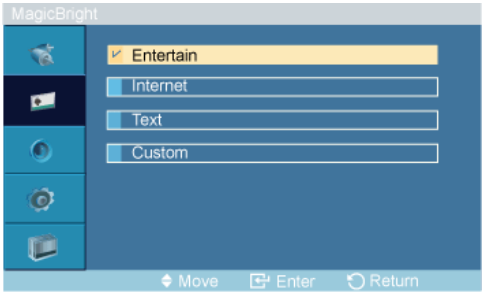
Picture [PC / DVI / MagicInfo Mode]

Available Modes

- **PC / DVI**
- **AV**
- **HDMI**
- **MagicInfo**
- **TV**

MagicBright PM

MENU → ▼ → ENTER → [**Picture**] → ENTER → [**MagicBright**]



→ ▲ , ▼ → ENTER

MagicBright is a feature providing the optimum viewing environment depending on the contents of the image you are watching. Currently four different modes are available: **Entertain**, **Internet**, **Text** and **Custom**. Each mode has its own pre-configured brightness value. You can easily select one of the four settings by simply pressing the **MagicBright** control button.

(Not available in **Dynamic Contrast** mode of **On**.)

1. **Entertain**

 High brightness

 For watching motion pictures such as a DVD or VCD.

2. **Internet**

 Medium brightness

 For working with a mixture of images such as texts and graphics.

3. **Text**

 Normal brightness

 For documents or works involving heavy text.

4. **Custom**

 Although the values are carefully chosen by our engineers, the pre-configured values may not be comfortable to your eyes depending on your taste.

 If this is the case, adjust the brightness and contrast by using the OSD menu.

Custom PM

By using the on-screen menus, the contrast and brightness can be changed to your personal preference.

MENU → ▼ → ENTER → [**Picture**] → ▼ → ENTER → [**Custom**]

(Not available in **Dynamic Contrast** mode of **On**.)

Note

By adjusting the picture using the **Custom** function, **MagicBright** will change to **Custom** mode.

Contrast

MENU → ▼ → ENTER → [**Picture**] → ▼ → ENTER → [**Custom**] → ENTER→ [**Contrast**]

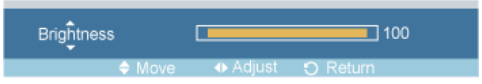


→ ◀, ▶ → ENTER

Adjusts the Contrast.

Brightness

MENU → ▼ → ENTER → [**Picture**] → ▼ → ENTER → [**Custom**] → ▼ → ENTER→ [**Brightness**]



→ ◀, ▶ → ENTER

Adjusts the Brightness.

Sharpness

MENU → ▼ → ENTER → [**Picture**] → ▼ → ENTER → [**Custom**] → ▼→ ▼→ ENTER→ [**Sharpness**]

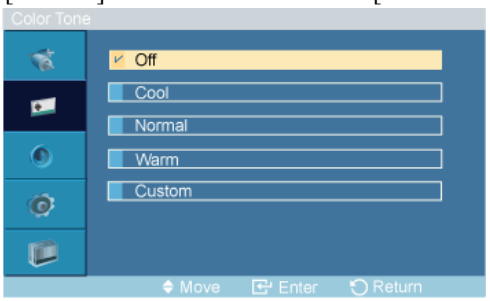


→ ◀, ▶ → ENTER

Adjusts the Sharpness.

Color Tone PM

MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ →ENTER → [**Color Tone**]



→ ▲ , ▼ → ENTER

The color tones can be changed.

(Not available in **Dynamic Contrast** mode of **On**.)

1. **Off**
2. **Cool**
3. **Normal**
4. **Warm**
5. **Custom**

Note

If you set the **Color Tone** to **Cool**, **Normal**, **Warm**, or **Custom**, the **Color Temp** function is disabled.

If you set the **Color Tone** to **Off**, the **Color Control** function is disabled

Color Control PM

Adjusts individual Red, Green, Blue color balance.

MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ →▼→ ENTER → [**Color Control**]

(Not available in **Dynamic Contrast** mode of **On**.)

Note

If you adjust the picture by using the **Color Control** function, **Color Tone** will turn to the **Custom** mode.

Red

MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ →▼ → ENTER → [**Color Control**] → ENTER → [**Red**]



→ ◀, ▶ → ENTER

Green

MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ →▼ → ENTER → [**Color Control**] → ▼→ ENTER → [**Green**]



→ ◀, ▶ → ENTER

Blue

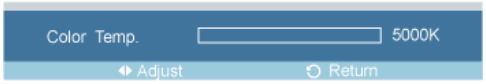
MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ →▼ → ENTER → [**Color Control**] → ▼ → ▼→ ENTER → [**Blue**]



→ ◀, ▶ → ENTER

Color Temp PM

MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ →▼ → ENTER → [**Color Temp**]



→ ◀, ▶ → ENTER

Color Temp is a measure of the 'warmth' of the image colors.

(Not available in **Dynamic Contrast** mode of **On**.)

Note

This function is only enabled if the **Color Tone** is set to **Off**.

Image Lock P

Image Lock is used to fine-tune and get the best image by removing noise that creates unstable images with jitters and shakiness. If satisfactory results are not obtained using the Fine adjustment, use the Coarse adjustment and then use Fine again.

(Available in **PC** mode only)

MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ →▼ →▼ → ENTER → [**Image Lock**]

Coarse

MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ →▼ →▼ → ENTER → [**Image Lock**] → ENTER → [**Coarse**]



→ ◀, ▶ → ENTER

Removes noise such as vertical stripes. Coarse adjustment may move the screen image area. You may relocate it to the center using the horizontal control menu.

Fine

MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ →▼ →▼ → ENTER → [**Image Lock**] → ▼ → ENTER → [**Fine**]



→ ◀, ▶ → ENTER

Removes noise such as horizontal stripes. If the noise persists even after Fine tuning, repeat it after adjusting the frequency (clock speed).

H-Position

MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ →▼ →▼ → ENTER → [**Image Lock**] → ▼→ ▼→ ENTER → [**H-Position**]



→ ◀, ▶ → ENTER

Adjusts the screen location horizontally.

V-Position

MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ →▼ →▼ → ENTER → [**Image Lock**] → ▼→ ▼→ ▼ → ENTER→ [**V-Position**]

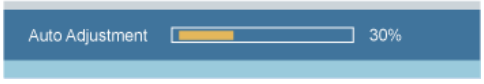


→ ◀, ▶ → ENTER

Adjusts the screen location vertically.

Auto Adjustment

MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ → ▼ →▼ →▼ → ENTER → [**Auto Adjustment**]



The values of **Fine**, **Coarse**, **Position** are adjusted automatically. By changing the resolution in the control panel, the auto function is performed.

(Available in **PC** mode only)

Note

The direct button on the remote control is the 'AUTO' button.

Signal Balance

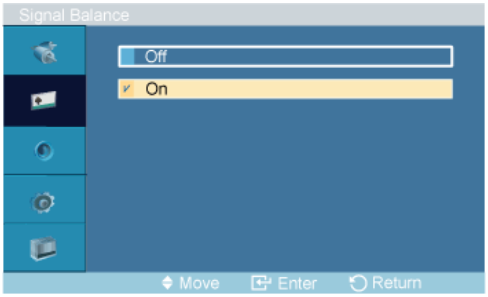
This is used to make up for the weak RGB signal transmitted by a long signal cable.

MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ → ▼ →▼ →▼ →▼ → ENTER → [**Signal Balance**]

(Available in **PC** mode only)

Signal Balance

MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ → ▼ →▼ →▼ →▼ → ENTER → [**Signal Balance**] → ENTER → [**Signal Balance**]



→ ▲ , ▼ → ENTER

Selects either **On** or **Off** with the signal control.

Signal Control

MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ → ▼ →▼ →▼→ ▼→ ENTER → [**Signal Balance**] → ▼→ ENTER → [**Signal Control**]

1. **R-Gain**

 MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ → ▼ →▼ →▼→ ▼→ ENTER → [**Signal Balance**] → ▼→ ENTER → [**Signal Control**] → ENTER → [**R-Gain**] → ENTER

 → ◀, ▶ → ENTER

2. **G-Gain**

 MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ → ▼ →▼ →▼→ ▼→ ENTER → [**Signal Balance**] → ▼→ ENTER → [**Signal Control**] → ▼ → ENTER→ [**G-Gain**] → ENTER

 → ◀, ▶ → ENTER

3. **B-Gain**

 MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ → ▼ →▼ →▼→ ▼→ ENTER → [**Signal Balance**] → ▼→ ENTER → [**Signal Control**] → ▼ → ▼ → ENTER→ [**B-Gain**] → ENTER

 → ◀, ▶ → ENTER

4. **R-Offset**

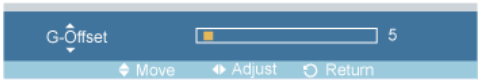
 MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ → ▼ →▼ →▼→ ▼→ ENTER → [**Signal Balance**] → ▼→ ENTER → [**Signal Control**] → ▼→ ▼ → ▼ → ENTER→ [**R-Offset**] → ENTER

→ ◀, ▶ → ENTER

5. **G-Offset**

MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ → ▼ →▼ →▼→ ▼→ ENTER → [**Signal Balance**] → ▼→ ENTER → [**Signal Control**] → ▼ → ▼ → ▼ → ▼ → ENTER→ [**G-Offset**] → ENTER



→ ◀, ▶ → ENTER

6. **B-Offset**

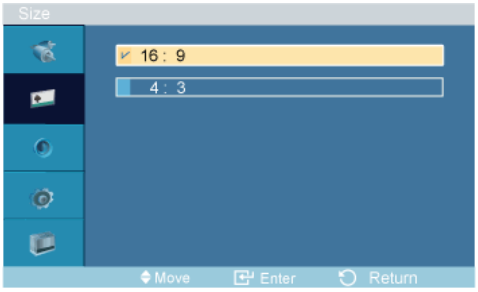
MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ → ▼ →▼ →▼→ ▼→ ENTER → [**Signal Balance**] → ▼→ ENTER → [**Signal Control**] → ▼→ ▼ → ▼ → ▼ → ▼ → → ENTER[**B-Offset**] → ENTER



→ ◀, ▶ → ENTER

Size P

MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ → ▼ →▼ →▼→ ▼→ ▼→ ENTER → [**Size**]



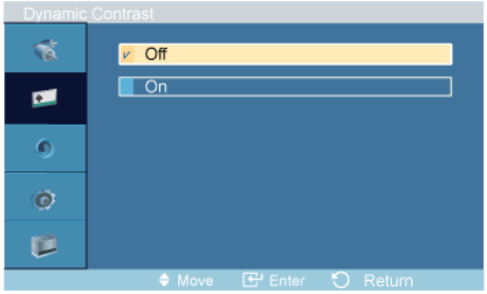
→ ▲ , ▼ → ENTER

The **Size** can be switched.

1. **16:9**
2. **4:3**

Dynamic Contrast PM

MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ → ▼ →▼ →▼→ ▼→ ▼→ ▼→ ENTER → [**Dynamic Contrast**]



→ ▲ , ▼ → ENTER

Dynamic Contrast automatically detects the distribution of the visual signal and adjusts to create an optimum contrast.

1. **Off**
2. **On**

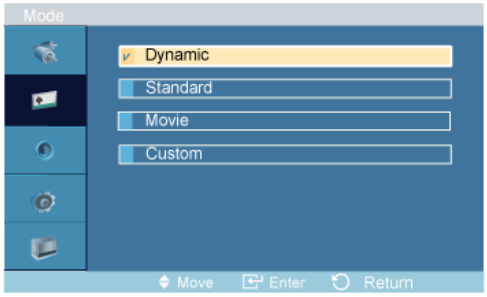
Picture [AV / HDMI / TV Mode]

Available Modes

- **PC / DVI**
- **AV**
- **HDMI**
- **MagicInfo**
- **TV**

Mode AHT

MENU → ▼ → ENTER → [**Picture**] → ENTER → [**Mode**]



→ ▲ , ▼ → ENTER

The LCD Display has four automatic picture settings ("**Dynamic**", "**Standard**", "**Movie**" and "**Custom**") that are preset at the factory.

Dynamic, **Standard**, **Movie**, or **Custom** can be activated.

(Not available in **Dynamic Contrast** mode of **On**.)

1. **Dynamic**
2. **Standard**
3. **Movie**
4. **Custom**

Note

The direct button on the remote control is the 'P.MODE' button.

Custom AHT

By using the on-screen menus, the contrast and brightness can be changed to your personal preference.

MENU → ▼ → ENTER → [**Picture**] → ▼ → ENTER → [**Custom**]

(Not available in **Dynamic Contrast** mode of **On**.)

Contrast

MENU → ▼ → ENTER → [**Picture**] → ▼ → ENTER → [**Custom**] → ENTER→ [**Contrast**]



→ ◀, ▶ → ENTER

Adjusts the Contrast.

Brightness

MENU → ▼ → ENTER → [**Picture**] → ▼ → ENTER → [**Custom**] → ▼ → ENTER→ [**Brightness**]



→ ◀, ▶ → ENTER

Adjusts the Brightness.

Sharpness

MENU → ▼ → ENTER → [**Picture**] → ▼ → ENTER → [**Custom**] → ▼→ ▼→ ENTER→ [**Sharpness**]



→ ◀, ▶ → ENTER

Adjusts the picture Sharpness.

Color

MENU → ▼ → ENTER → [**Picture**] → ▼ → ENTER → [**Custom**] → ▼→ ▼→ ▼→ ENTER→ [**Color**]



→ ◀, ▶ → ENTER

Adjusts the picture Color.

Tint

MENU → ▼ → ENTER → [**Picture**] → ▼ → ENTER → [**Custom**] → ▼ → ▼ → ▼→ ▼ → ENTER → [**Tint**]

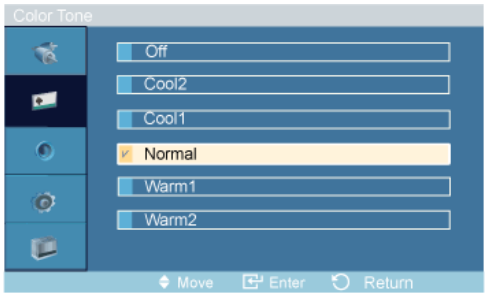


→ ◀, ▶ → ENTER

Adds a natural tone to the display.

Color Tone AHT

MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ → ENTER → [**Color Tone**]



→ ▲ , ▼ → ENTER

The color tones can be changed. The individual Color components are also user adjustable.

(Not available in **Dynamic Contrast** mode of **On**.)

1. **Off**
2. **Cool2**
3. **Cool1**
4. **Normal**
5. **Warm1**
6. **Warm2**

Note

If you set the **Color Tone** to **Cool2**, **Cool1**, **Normal**, **Warm1**, or **Warm2**, the **Color Temp** function is disabled.

Color Temp AHT

MENU → ▼ → ENTER → [**Picture**] → ▼ →▼ →▼ → ENTER → [**Color Temp**]



→ ◀, ▶ → ENTER

Color temp is a measure of the 'warmth' of the image colors.

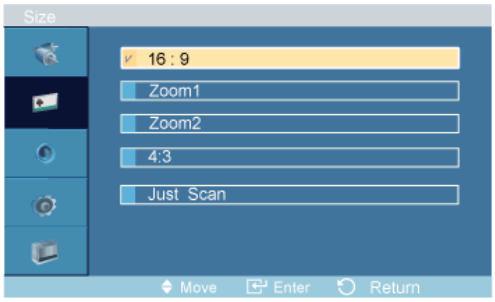
(Not available in **Dynamic Contrast** mode of **On**.)

Note

This function is only enabled if the **Color Tone** is set to **Off**.

Size AH

MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ → ▼ →▼ → ENTER → [**Size**]



→▲, ▼→ ENTER

The **Size** can be switched.

1. **16:9**
2. **Zoom 1**
3. **Zoom 2**
4. **4:3**
5. **Just Scan**

(Not available in **Dynamic Contrast** mode of **On**.)

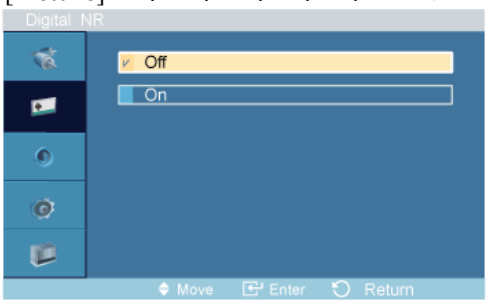
Note

The **Zoom1**, **Zoom2** are not available **HDMI**.

The **Just Scan** are available in **HDMI**.

Digital NR (Digital Noise Reduction) AHT

MENU →▼→ ENTER → [**Picture**] →▼→▼→▼→▼→▼→ ENTER → [**Digital NR**]



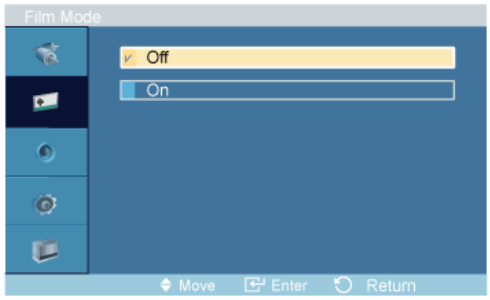
→▲, ▼→ ENTER

Turns the Digital Noise Reduction feature **Off**/**On**. The Digital Noise Reduction feature allows you to enjoy clearer and crisper images.

1. **Off**
2. **On**

Film Mode AT

MENU →▼→ ENTER → [**Picture**] →▼→▼→▼→▼→▼→▼→ ENTER → [**Film Mode**]



→ ▲ , ▼ → ENTER

Turns **Film Mode Off/On**.

The **Film Mode** feature offers you a theater-quality viewing experience.

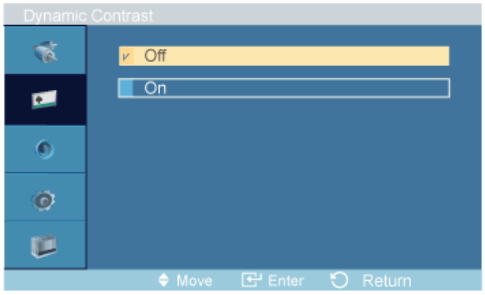
(Not available in **HDMI** Mode)

1. **Off**

2. **On**

Dynamic Contrast AHT

MENU → ▼ → ENTER → [**Picture**] → ▼ → ▼ → ▼ →▼ →▼ →▼ →▼ → ENTER → [**Dynamic Contrast**]



→ ▲ , ▼ → ENTER

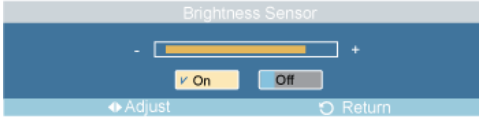
Dynamic Contrast automatically detects the distribution of the visual signal and adjusts to create an optimum contrast.

1. **Off**

2. **On**

Brightness Sensor AHT

MENU →▼→ ENTER → [**Picture**] →▼→▼→▼→▼→▼→▼→▼→▼→ ENTER → [**Brightness Sensor**]



→ ◀, ▶ →ENTER

Brightness Sensor is to automatically detect distribution of inputted visual signal and adjust to create optimum brightness.

1. **Off**
2. **On**

Sound

Available Modes

- **PC / DVI**
- **AV**
- **HDMI**
- **MagicInfo**
- **TV**

Mode PAHMT

MENU → ▼ →▼ → ENTER → [**Sound**] → ENTER → [**Mode**]



→ ▲ , ▼ → ENTER

The LCD Display has a built-in high fidelity stereo amplifier.

1. **Standard**

 Selects **Standard** for the standard factory settings.

2. **Music**

 Selects **Music** when watching music videos or concerts.

3. **Movie**

 Selects **Movie** when viewing movies.

4. **Speech**

 Selects **Speech** when watching a show that is mostly dialogue (i.e., news).

5. **Custom**

 Selects **Custom** if you want to adjust the settings according to your personal preferences.

Custom PAHMT

The sound settings can be adjusted to suit your personal preferences.

MENU → ▼ →▼ → ENTER → [**Sound**] →▼→ ENTER → [**Custom**]

Note

- You can hear the sound even when sound value is set to 0.
- If you adjust sound using **Custom** function, **Mode** will turn to **Custom** mode.

Bass

MENU → ▼ →▼ → ENTER → [**Sound**] →▼→ ENTER → [**Custom**]→ENTER→ [**Bass**]



→ ◀, ▶ → ENTER

Emphasizes low frequency audio.

Treble

MENU → ▼ →▼ → ENTER → [**Sound**] →▼→ ENTER → [**Custom**]→▼→ENTER→ [**Treble**]



→ ◀, ▶ → ENTER

Emphasizes high frequency audio.

Balance

MENU → ▼ →▼ → ENTER → [**Sound**] →▼→ ENTER → [**Custom**]→▼→▼→ENTER→ [**Balance**]

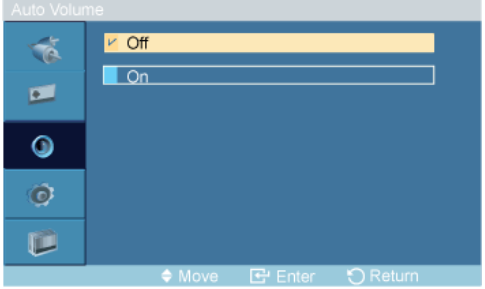


→ ◀, ▶ → ENTER

Allows you to Adjusts the sound balance between the left and right speakers.

Auto Volume PAHMT

MENU → ▼ →▼ → ENTER → [**Sound**] →▼→▼→ ENTER → [**Auto Volume**]



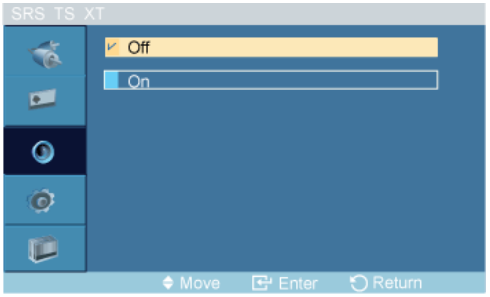
→ ▲ , ▼ → ENTER

Reduces the difference in volume control between broadcasters.

1. **Off**
2. **On**

SRS TS XT P A H M T

MENU → ▼ →▼ → ENTER → [**Sound**] →▼→▼→▼→ ENTER → [**SRS TS XT**]



→ ▲ , ▼ → ENTER

SRS TS XT is a patented SRS technology that solves the problem of playing 5.1 multichannel content over two speakers. TruSurround delivers a compelling, virtual surround sound experience through any two-speaker playback system, including internal television speakers. It is fully compatible with all multichannel formats.

1. **Off**
2. **On**

Note

The direct button on the remote control is the 'SRS' button.

Setup

Available Modes

- **PC / DVI**
- **AV**
- **HDMI**
- **MagicInfo**
- **TV**

Language P A H M T

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ENTER → [**Language**]



→ ▲ , ▼ → ENTER

You can choose one of 11 languages.

English,Deutsch,Español,Français,Italiano,Svenska,Русский
Português, 中国语, 日本語,한국어

Note

The language chosen affects only the language of the OSD. It has no effect on any software running on the computer.

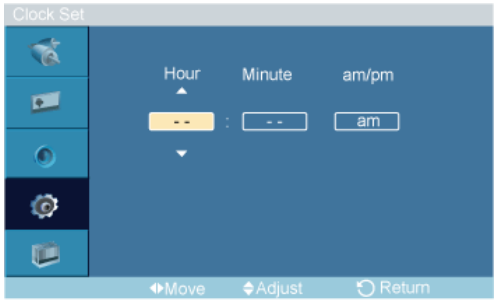
Time PAHMT

Selects from one of 4 time settings, **Clock Set**, **Sleep Timer**, **On Timer**, and **Off Timer**.

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼ → ENTER → [**Time**]

Clock Set

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼ → ENTER → [**Time**] → ENTER→ [**Clock Set**]



→ ▲ , ▼ → ◀, ▶ → ENTER

Current Time Setting.

Sleep Timer

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼ → ENTER → [**Time**] → ▼ → ENTER→ [**Sleep Timer**]



→ ▲ , ▼ → ENTER

Turns the LCD Display off automatically at certain times.

1. **Off**
2. **30**
3. **60**
4. **90**
5. **120**

6. **150**

7. **180**

On Timer

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼ → ENTER → [**Time**] → ▼→ ▼ → ENTER→ [**On Timer**]



→ ▲ , ▼ / ◀, ▶ → ENTER

Turns the LCD Display on automatically at a preset time. Controls the mode and the volume level at the time the LCD Display turns on automatically.

Off Timer

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼ → ENTER → [**Time**] → ▼→ ▼→ ▼ → ENTER → [**Off Timer**]

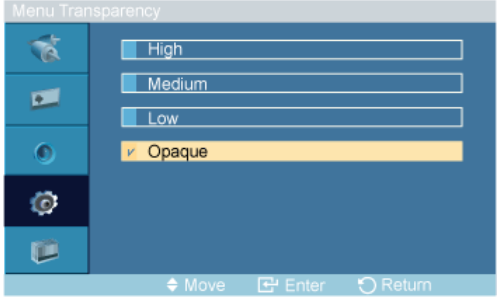


→ ▲ , ▼ / ◀, ▶ → ENTER

Turns the LCD Display off automatically at a preset time.

Menu Transparency P A H M T

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼ → ENTER → [**Menu Transparency**]



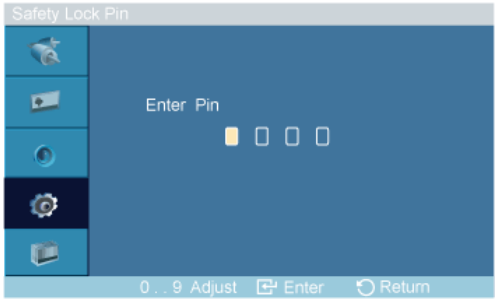
→ ▲ , ▼ → ENTER

Change the transparency of the background of the OSD.

1. **High**
2. **Medium**
3. **Low**
4. **Opaque**

Safety Lock PIN P A H M T

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼ → ENTER → [**Safety Lock PIN**]

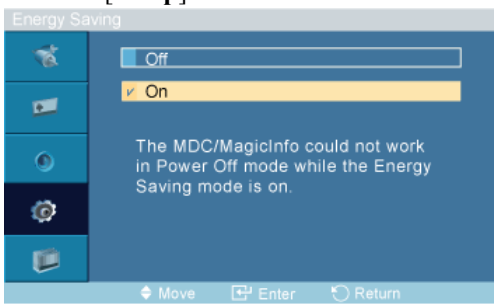


→ [0□ 9] → [0□ 9] → [0□ 9]

The password can be changed.

Energy Saving P A H M T

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ENTER → [**Energy Saving**]



→ ▲ , ▼ → ENTER

This feature adjusts the power consumption of the unit in order to save energy.

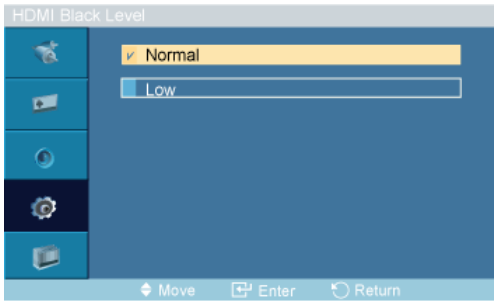
1. **Off**
2. **On**

Note

If you want to reduce the standby power consumption, set **Energy Saving** to **On**. However, when **Energy Saving** is **On**, you cannot use the remote Power On function of the MDC and the WOL (Wake On LAN) function of MagicInfo.

HDMI Black Level H

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ENTER → [**HDMI Black Level**]



→ ▲ , ▼ → ENTER

When a DVD or set-top box is connected to your TV via HDMI, it may cause a degradation in the screen quality, such as an increase in the black level, a low contrast, or discoloration, etc., depending on the external device connected. In this case, adjust the screen quality of your TV by configuring the **HDMI black level**.

1. **Normal**

2. **Low**

Video Wall PHT

A **Video Wall** is a set of video screens connected together, so that each screen shows a part of the whole picture or where the same picture is repeated on each screen.

When the **Video Wall** is on, you can adjust the **Video Wall** screen setting.

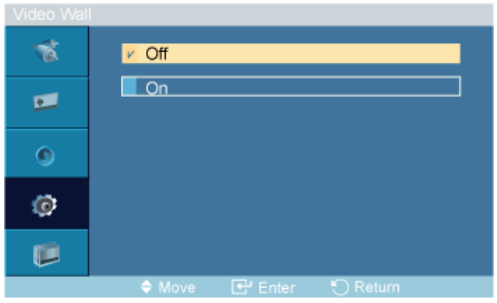
MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ENTER → [**Video Wall**]

Note

When **Video Wall** is running, the **Auto Adjustment**, **Image Lock**, and **Size** functions are not available. **Video Wall** does not operate in **MagicInfo** mode.

Video Wall

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ENTER → [**Video Wall**]→ ENTER → [**Video Wall**]



→ ▲ , ▼ → ENTER

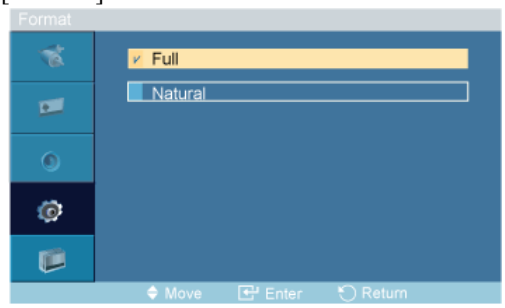
Turns Off/On the **Video Wall** function of the selected display Off/On.

1. **Off**

2. **On**

Format

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ENTER → [**Video Wall**]→ ▼ → ENTER → [**Format**]



→ ▲ , ▼ → ENTER

The **Format** can be selected to see a divided screen.

1. **Full**

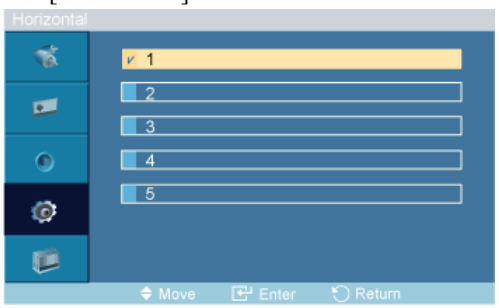
 Provides a full screen without any margins.

2. **Natural**

 Displays a natural image with the original aspect ratio intact.

Horizontal

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ENTER → [**Video Wall**]→ ▼ → ▼ → ENTER → [**Horizontal**]



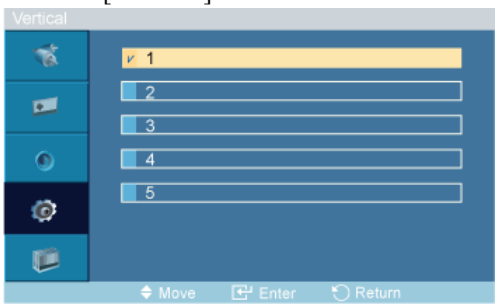
→ ▲ , ▼ → ENTER

Sets how many parts the screen should be divided horizontally.

Five adjustment levels: 1, 2, 3, 4, and 5.

Vertical

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ENTER → [**Video Wall**]→ ▼ → ▼ → ▼ → ENTER → [**Vertical**]



→ ▲ , ▼ → ENTER

Sets how many parts the screen should be divided vertically.

Five adjustment levels: 1, 2, 3, 4, and 5.

Screen Divider

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ENTER → [**Video Wall**]→ ▼ → ▼ → ▼ → ▼ → ENTER → [**Screen Divider**]



The screen can be divided into several images. A number of screens can be selected with a different layout when dividing.

- Select a mode in Screen Divider.
- Select a display in Display Selection.
- The selection will be set up by pressing a number in the selected mode.

Safety Screen PASCHM

The **Safety Screen** function is used to prevent afterimages that may appear when a still picture is displayed on the screen over a long time.

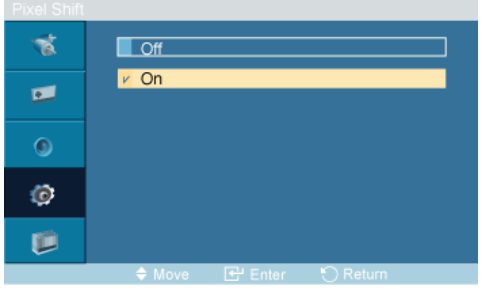
- The **Screen Scroll** function scrolls the screen for the specified period of time.
- This function is not available when the power is turned off.

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ▼ → ENTER → [**Safety Screen**]

Pixel Shift

Pixel Shift

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ▼ → ENTER → [**Safety Screen**] → ENTER → [**Pixel Shift**] → ENTER → [**Pixel Shift**] → ▲ , ▼ → ENTER



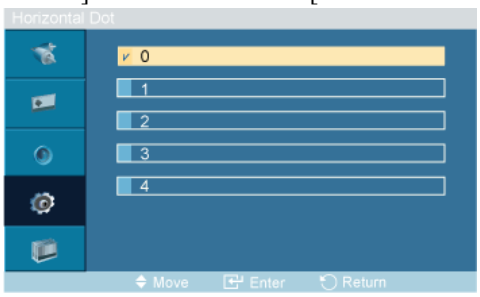
To prevent after-images on the screen you can use this function, so that every minute pixels on the PDP are moved in horizontal or vertical direction.

1. **Off**

2. **On**

Horizontal Dot

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ▼ → ENTER → [**Safety Screen**] → ENTER → [**Pixel Shift**] → ▼ → ENTER → [**Horizontal Dot**] → ▲ , ▼ → ENTER



Sets how many pixels the screen moves horizontally.

Five adjustment levels: 0, 1, 2, 3, and 4.

Vertical Line

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ▼ → ENTER → [**Safety Screen**] → ENTER → [**Pixel Shift**] → ▼ →▼ → ENTER → [**Vertical Line**] → ▲ , ▼ → ENTER



Sets how many pixels the screen moves vertically.

Five adjustment levels: 0, 1, 2, 3, and 4.

Time

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ▼ → ENTER → [**Safety Screen**] → ENTER → [**Pixel Shift**] → ▼ →▼ →▼ → ENTER → [**Time**] → ▲ , ▼ → ENTER

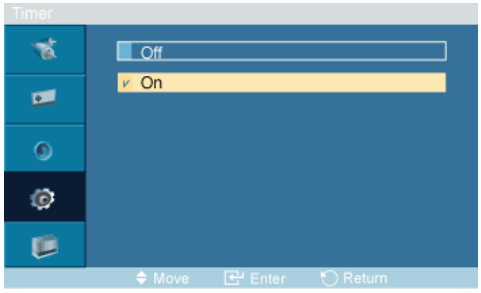


Set the time interval for performing the horizontal or vertical movement, respectively.

Timer

Timer

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ▼ → ENTER → [**Safety Screen**] → ▼ → ENTER → [**Timer**] → ENTER → [**Timer**] → ▲ , ▼ → ENTER



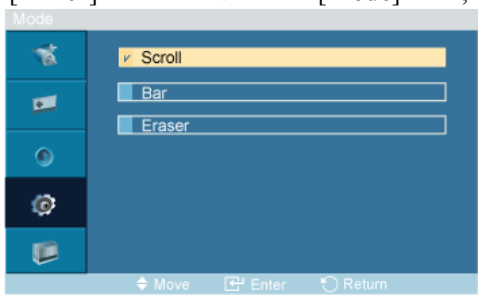
You can set the timer for Screen Burn Protection.

If you start the operation to erase any residual image, the operation will be performed for the set period of time and then automatically finish.

1. **Off**
2. **On**

Mode

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ▼ → ENTER → [**Safety Screen**] → ▼ → ENTER → [**Timer**] → ▼ → ENTER → [**Mode**] → ▲ , ▼ → ENTER

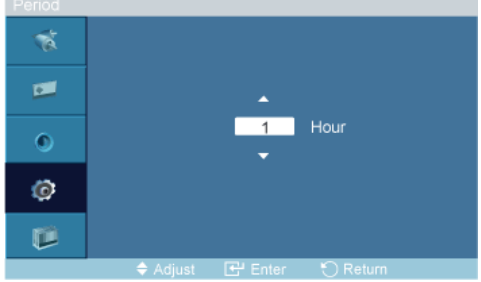


You can change the **Safety Screen** Type.

1. **Scroll**
2. **Bar**
3. **Eraser**

Period

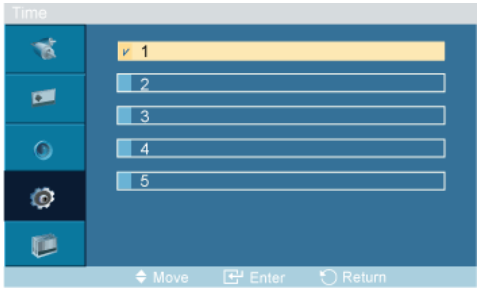
MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ▼ → ENTER → [**Safety Screen**] → ▼ → ENTER → [**Timer**] → ▼ → ▼ → ENTER → [**Period**] → ▲ , ▼ → ENTER



Use this function to set the execution period for each mode set in the timer.

Time

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ▼ → ENTER → [**Safety Screen**] → ▼ → ENTER → [**Timer**] → ▼ → ▼ → ▼ → ENTER → [**Time**] → ▲ , ▼ → ENTER

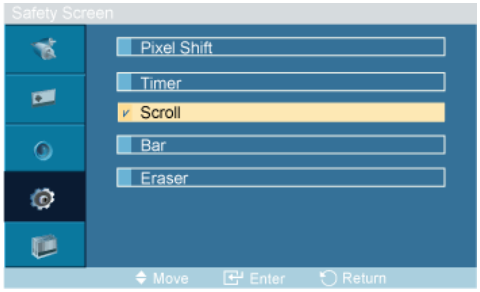


Within the set period of time specify a time for execution.

- **Mode-Scroll** : 1~5 **sec**
- **Mode-Bar**, **Eraser** : 10~50 **sec**

Scroll

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ▼ → ENTER → [**Safety Screen**] → ▼ → ▼ → ENTER → [**Scroll**]

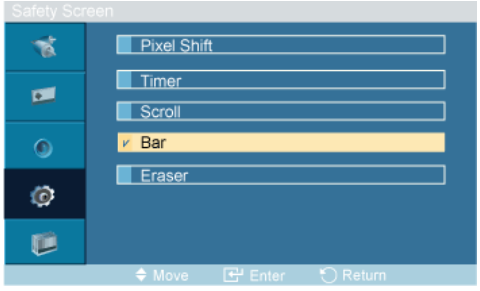


This function prevents after-images on the screen by moving all the pixels on the PDP according to a pattern.

Use this function when there are remaining after-images or symbols on the screen, especially when you displayed a still image on the screen for a long time.

Bar

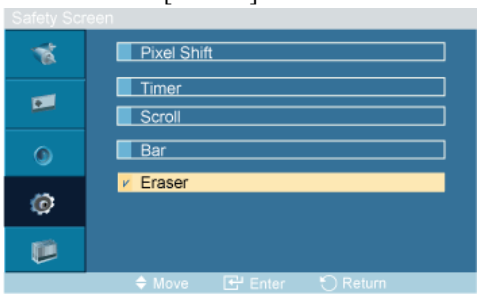
MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ▼ → ENTER → [**Safety Screen**] → ▼ → ▼ → ▼ →ENTER → [**Bar**]



This function prevents after-images on the screen by moving long black and white vertical lines.

Eraser

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ▼ → ENTER → [**Safety Screen**] → ▼ → ▼ → ▼ → ▼ →ENTER → [**Eraser**]



This function prevents after-images on the screen by moving a rectangular pattern.

Resolution Select P

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ▼ → ▼ →ENTER → [**Resolution Select**]



→ ▲ , ▼ → ENTER

When the picture is not displayed properly on the screen when setting the graphics card resolution of the computer to 1024 x 768 @ 60Hz, 1280 x 768 @ 60Hz, 1360 x 768@ 60Hz or 1366 x768 @ 60Hz, by using this function(Resolution Select), you can have the picture displayed on the screen in the specified resolution.

Note

Available in **PC** mode only

1. **Off**
2. **1024 X 768**
3. **1280 X 768**
4. **1360 x 768**
5. **1366 X 768**

Note

Selecting the menu is only allowed when the graphics resolution is set to 1024 x 768 @ 60Hz, 1280 x 768 @ 60Hz, 1360 x 768@ 60Hz or 1366 x768 @ 60Hz.

Power On Adjustment PAHMT

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ▼ → ▼ →▼→ ENTER → [**Power On Adjustment**]



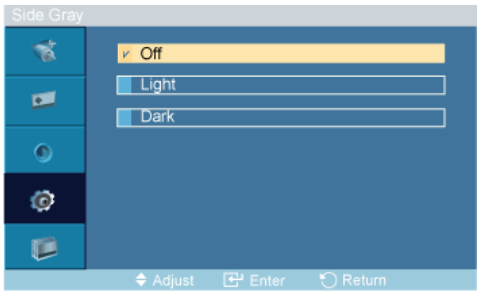
→ ▲ , ▼ → ENTER

Adjusts the Power On time for the screen.

Caution: Set the Power On time to be loger to avoid overvoltage.

Side Gray P A H M T

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ▼ → ▼ →▼→ ▼→ ENTER → [**Side Gray**]



→ ▲ , ▼ → ENTER

Select the brightness of the grey for the screen background.

1. **Off**
2. **Light**
3. **Dark**

Reset

Reverts the product settings to factory defaults. The Reset function is only available when **PC** / **DVI** is being used.

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ▼ → ▼ →▼→ ▼→ ▼→ ENTER → [**Reset**]

Image Reset P

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ▼ → ▼ →▼→ ▼→ ▼→ ENTER → [**Reset**]→ ENTER → [**Image Reset**]



→ ◄, ►→ ENTER

Note

Available in **PC** mode only

Note

The Reset function is not available when **Video Wall** is **On**.

Color Reset P A H M T

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ▼ → ▼ →▼→ ▼→ ▼→ ENTER → [**Reset**]→ ▼→ ENTER → [**Color Reset**]



→ ◀, ▶ → ENTER

Lamp Control P A H M T

MENU → ▼ →▼ →▼ → ENTER → [**Setup**] → ▼→ ▼→ ▼→ ▼ → ▼ → ▼ → ▼ → ▼ →▼→ ▼→ ▼→ ▼ → ENTER → [**Lamp Control**]



→ ◀, ▶ → ENTER

Adjusts the inverter lamp in order to reduce energy consumption.

Note

This function does not operate when **Dynamic Contrast** is set to **On** in **PC**, **DVI**, **AV**, **HDMI**, **TV** modes.

Multi Control

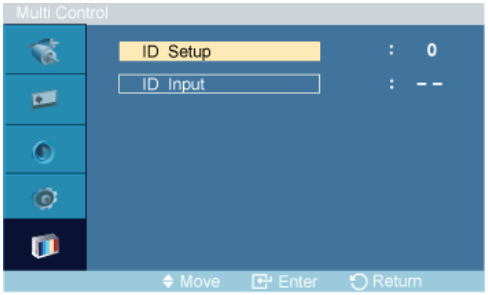
Available Modes

- **P PC / DVI**
- **A AV**
- **H HDMI**
- **M MagicInfo**
- **T TV**

Multi Control P A H M T

Assigns an individual ID to the SET.

MENU → ▼ →▼ →▼ → ▼ → ENTER → [**Multi Control**] → ENTER



→ ▲ , ▼ → [0~9]

- **ID Setup**

 Assigns distinctive IDs to the SET.

- **ID Input**

 Use to select the transmitter functions of the individual SET. Only a SET where the ID corresponds to the transmitter setting becomes activated.

MagicInfo

Available Modes

- **PC / DVI**
- **AV**
- **HDMI**
- **MagicInfo**
- **TV**

Note

- The operating system for this set only supports English so the other languages might be corrupted on the screen.
- For **MagicInfo**, a remote control is available for **MagicInfo**. However, it is recommended using a separate USB keyboard.
- For **MagicInfo** in Device mode, moving external devices while booting may cause errors. Set up external devices only if the LCD Display turns on.
- Do not unplug the LAN cable used for the network (ex: video display). Otherwise, the program (MagicInfo) may stop. If you do unplug the cable, restart the system.
- Do not unplug the LAN cable used by an USB device (ex: video display). Otherwise, the program (MagicInfo) may stop.
- To access other sources, press the SOURCE button in **MagicInfo**.
- The preset password for the LCD Display is "000000".
- The server program's Power-On option works only if the LCD Display's power is completely shut off.

 Please make sure not to use the Power-On option when the LCD Display is in the process of shutting down since this may cause system errors on the LCD Display.
- In the OSD image of **MagicInfo**, Network mode is the same as Device.
- When using **MagicInfo** with the MagicInfo Pro Server Program: perform Network mode.
- When using **MagicInfo** with the device directly connected to LCD Display : execute Device mode.
- Press ALT + F12 to directly go to the **MagicInfo** Window screen.

- To setup **MagicInfo** on a Windows screen, a keyboard and mouse are required.
- To setup **MagicInfo** on a Windows screen, refer to the MagicInfo Server Help.

 It is highly recommended not to turn off the AC power during an operation.
- For pivoted LCD Displays, ticker transparency is not supported.
- For pivoted LCD Displays, a screen resolution of up to 720*480(SD) is supported for movies.
- For drive D:, **EWF** is not applied.
- When the contents of Setup have been changed when **EWF** is in the **Enable** state, to save the changes in the disk, you must **Commit** them.
- By selecting **Disable**, **Enable** or **Commit**, the system is restarted.

Photo M

The JPEG, BMP file format are supported.

Auto



Automatically fits the image to the window.

Original

Shows the properties of the original file.

Slide Show



Displays the properties of the original file as they are.

Interval



Controls the time intervals between image files for a slide show. (5 **Sec**, 10 **Sec**, 20 **Sec**, 30 **Sec**, 60 **Sec**)

Rotation



Displays an image file by turning it clockwise by 90 degrees.

Zoom



Displays a reduced picture.

Close



Closes the image control Menu.

Music



The MP3 file format is supported.

Movie

The MPEG1, WMV file format are supported.

Play



Plays a movie file.

Full Size



Plays a movie file in full screen.

OFFICE / HTML



PPT(Power Point), DOC(MS Word), XLS(MS Excel), PDF, HTML, HTM files are displayed.

Note

- Install the proper viewer(freeware) program to see the MS Office(Word, Excel, Power Point) or PDF doucuments.

Internet



Connects to the Internet

Setup

Sets various functions in **MagicInfo** mode. A password must be entered to access **Setup** mode.

Schedule View



Displays a schedule.

TCP/IP



Changes the TCP/IP settings.

Connection



Modifies the network settings.

Password



The password can be changed.

- The password should be between 6 and 12 characters in numeric format.

 (You should enter a password between 6 and 12 characters in numeric format)

- If you enter the wrong password three times, the setup configuration is reset and a warning message appears from the server.

- If you forget the password, enter Info, 8, 2 and 4 on the remote control to initialize the password. This will reset the previous settings of Setup mode.

File



Local : You can delete or copy files on both local and removable disks.

Play Option



You can set the repeat play and screen settings.

Repeat : Determines the repeat option for playing movies and music.

- **None** - Select No Repeat to play a movie or tune in the list only once.

- **File Repeat** - Select Repeat File to play a movie or tune in the list repeatedly.
- **List Repeat** - Select Repeat List to play movies or tunes in the list in sequence repeatedly.

Rotation - Sets the picture orientation.

- **Landscape** - Sets the screen resolution to 1366x768 pixels.
- **Portrait** - Sets the screen resolution to 768x1366 pixels.

EWF(Enhanced Write Filter) : Prevents change to and loss of the data saved on the disk.

- **Disable** - Disables **EWF** to allow saved data to be changed data on the protected disk (drive C:). When switching from the **Enable** to the **Disable** state, you can select **Commit**.
- **Enable** - Enables **EWF** to prevent saved data to be changed on the protected disk (drive C:).
- **Commit** - **Commit** the changed data to the protected disk (drive C:) when **EWF** is in the **Enable** state. **Commit** is not available when **EWF** is in the **Disable** state.

D.Menu

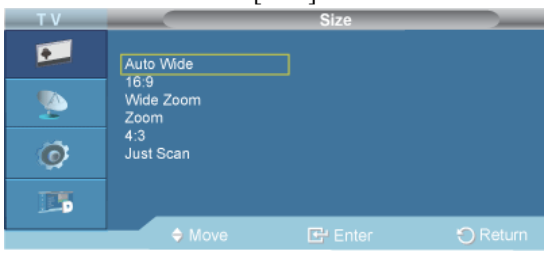
Available Modes

- **PC / DVI**
- **AV**
- **HDMI**
- **MagicInfo**
- **TV**

PictureT

Size

D.MENU →[**Picture**] → ENTER → ENTER→[**Size**]



→▲, ▼→ ENTER

Use to select **PC**, **DVI** or other external input sources connected to the LCD Display. Use to select the screen of your choice.

1. **Auto Wide**

 : Automatically adjusts the picture size to the "16:9" aspect ratio.

2. **16:9**

: Sets the picture to 16:9 wide mode.

3. **Wide Zoom**

 : Magnify the size of the picture more than 4:3.

4. **Zoom**

 : Magnifies the size of the picture on the screen.

5. **4:3**

 : Sets the picture to 4:3 normal mode.

6. **Just Scan**

 : Use the function to see the full image without any cutoff when HDMI (720p/1080i/1080p), DTV (1080i) signals are input.

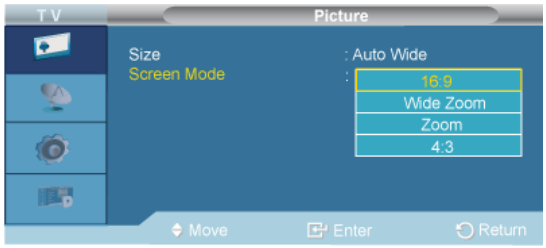
Note

Auto Wide function is available only in **TV**, **DTV**, **AV** mode.

In **PC** Mode, only **16:9** and **4:3** mode can be adjusted.

Screen Mode

D.MENU →[**Picture**] → ENTER → ▼→ ENTER



→ ▲ , ▼→ ENTER

Only when setting the picture size to **Auto Wide** can the user determine the **Screen mode**. Each individual European country requires a different picture size so this function is intended to help users to select it.

"**Screen mode**" is supported in TV, Ext., Component (480i/1080i) and HDMI (480i/1080i)

Picture **Size** is available in **Auto Wide** mode

This function is not available in **PC** or **Component**, **Ext**., **HDMI** mode.

1. **16:9**
2. **Wide Zoom**
3. **Zoom**
4. **4:3**

Channel

Country

D.MENU →▼ →[**Channel**] → ENTER→ ENTER →[**Country**]

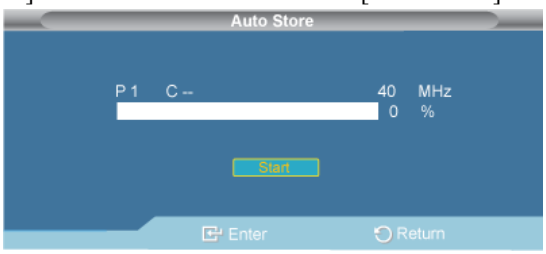


→▲, ▼→ ENTER

Select the country in which the product is being used before you use the Auto Store feature. If you do not see your country in the list, select Others.

Auto Store

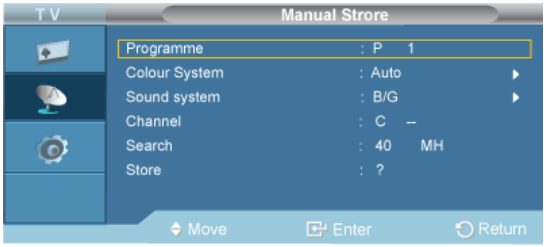
D.MENU →▼ →[**Channel**] → ENTER →▼→ ENTER →[**Auto Store**]



You can scan the frequency ranges available on your television in your area and store all the channels found automatically.

Manual Store

D.MENU →▼ →[**Channel**] → ENTER →▼→ ▼→ ENTER →[**Manual Store**]



You can scan the frequency ranges available on your television in your area and store all the channels found manually.

Programme

D.MENU →▼ →[**Channel**] → ENTER →▼→ ▼→ ENTER →[**Manual Store**] → ENTER →[**Programme**]

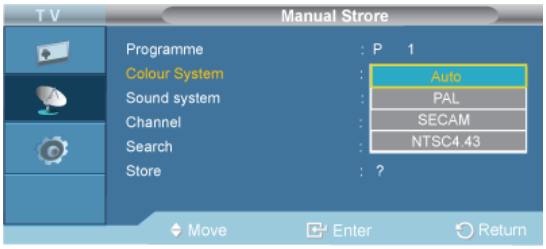


→ENTER → ▲, ▼ → ENTER

Inputting the appropriate program number on the screen.

Colour System

D.MENU →▼ →[**Channel**] → ENTER →▼→ ▼→ ENTER →[**Manual Store**] → ▼ →ENTER→ [**Colour System**]



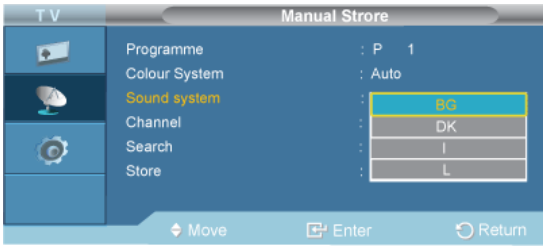
→▲, ▼→ ENTER

Adjusts repeatedly until the colour is of the best quality.

(**Auto** <-> **PAL** <-> **SECAM** <-> **NTSC4.43**)

Sound System

D.MENU →▼ →[**Channel**] → ENTER →▼→ ▼→ ENTER →[**Manual Store**] → ▼ →▼ →ENTER → [**Sound System**]

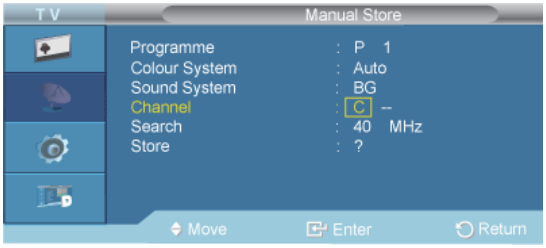


→▲, ▼→ ENTER

Adjusts repeatedly until the sound is of the best quality.

Channel

D.MENU →▼→[**Channel**] → ENTER →▼→ ▼→ ENTER →[**Manual Store**] →▼→▼→▼→ENTER → [**Channel**]



→▲, ▼/◀, ▶ → ENTER

You can store television channels, including those received via cable networks.

When storing channels manually, you can choose:

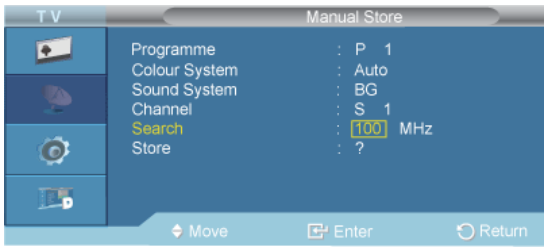
Whether or not to store each of the channels found. The Programme number of each stored channel which you wish to identify

- **C** (Air channel mode): You can select a channel by entering the assigned number to each air broadcasting station in this mode.

- **S** (Cable channel mode): You can select a channel by entering the assigned number for each cable channel in this mode.

Search

D.MENU →▼ →[**Channel**] → ENTER →▼→ ▼→ ENTER →[**Manual Store**] → ▼→ ▼ →▼ →▼ → ENTER→ [**Search**]

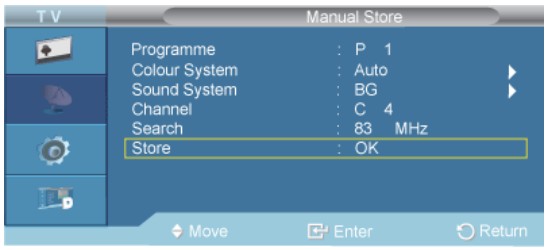


→▲, ▼ → ENTER

The tuner scans the frequency range until the first channel or the channel that you selected is received on your screen.

Store

D.MENU →▼ →[**Channel**] → ENTER →▼→ ▼→ ENTER →[**Manual Store**] → ▼→ ▼ →▼ →▼ → ▼ →ENTER→ [**Store**]



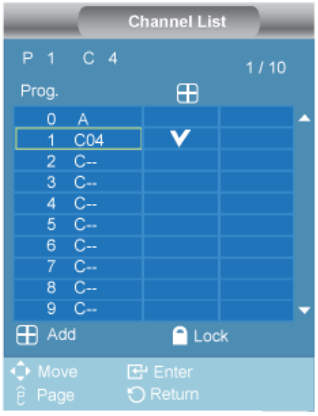
→ ENTER

It's used to restore the number user inputs.

Channel Manager

Channel List

D.MENU →▼ →[**Channel**] → ENTER →▼→ ▼→ ▼→ ENTER →[**Channel Manager**] →ENTER → [**Channel List**]



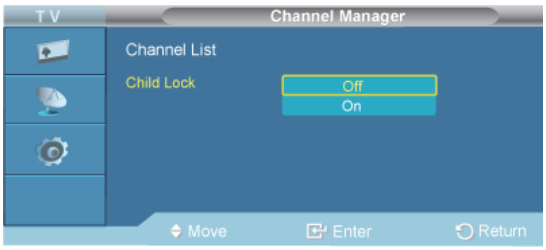
→▲, ▼/◀, ▶ → ENTER

You can add or delete a channel so only channels you want are displayed.

is active when Child Lock is selected to On.

Child Lock

D.MENU →▼→[**Channel**] → ENTER →▼→ ▼→ ▼→ ENTER →[**Channel Manager**] →▼→ENTER → [**Child Lock**]



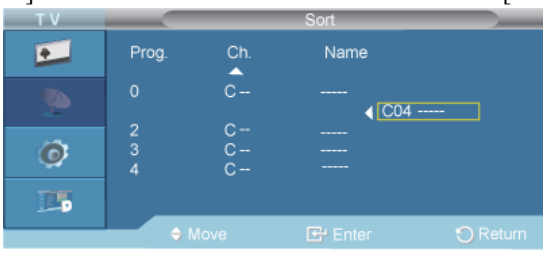
→▲, ▼→ ENTER

Protects children from viewing inappropriate programs by blocking certain broadcast or video programs.

The Child Lock feature can be selected only from the remote.

Sort T

D.MENU →▼ →[**Channel**] → ENTER →▼→ ▼→ ▼→ ▼→ ENTER →[**Sort**]

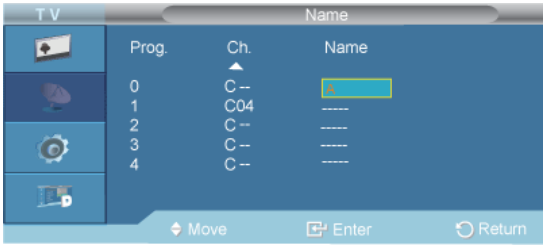


→▲, ▼/◀, ▶ → ENTER

It's used to exchange the numbers of two channels.

Name T

D.MENU →▼ →[**Channel**] → ENTER →▼→ ▼→ ▼→ ▼→ ▼→ ENTER →[**Name**]



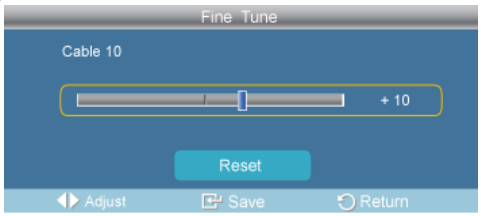
→ ENTER →▲, ▼/◀, ▶ → ENTER

Name the device connected to the input jacks to make your input source selection easier.

The following characters are available: Letters of the alphabet (A~Z) / Numbers (0~9) / Special characters (+, -, *, /, space)

Fine Tune

D.MENU →▼ →[**Channel**] → ENTER →▼→ ▼→ ▼→ ▼→ ▼→ ▼→ ENTER →[**Fine Tune**]

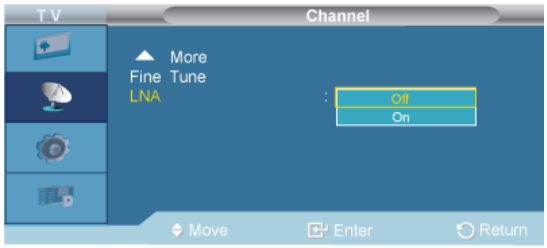


→▲, ▼/◀, ▶ → ENTER

Due to weak signals or an incorrect antenna configuration, some of the channels may not be tuned correctly.

LNA

D.MENU →▼ →[**Channel**] → ENTER →▼→ ▼→ ▼→ ▼→ ▼→ ▼→ ▼→ ENTER →[**LNA**]



→▲, ▼→ ENTER

Turns the low noise amplifier on or off.

Setup

Plug & Play

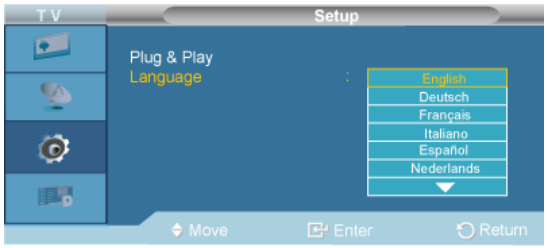
D.MENU →▼→▼ →[**Setup**] → ENTER →ENTER →[**Plug & Play**]



You can manage the entire configuration.

Language

D.MENU →▼→▼ →[**Setup**] → ENTER→▼ →ENTER →[**Language**]



You can choose one of 18 languages.

- English, Deutsch, Français, Italiano, Español, Nederlands, Português, Ελληνικά, Čeština, Srpski, Hrvatski, Română, Magyar, Polski, Русский, Български, Türkçe, Slovensky

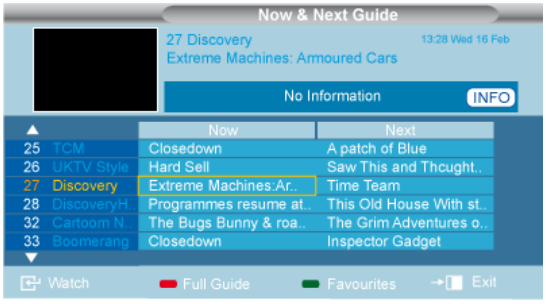
The language chosen affects only the language of the OSD.

Digital Menu

Guide

Now & Next Guide

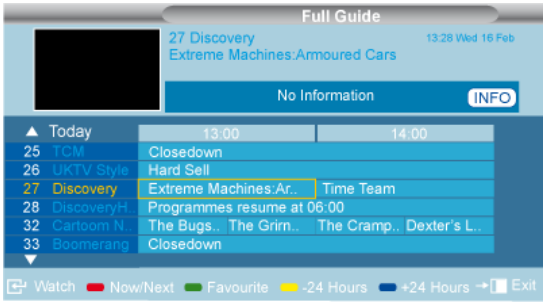
D.MENU →▼→▼→▼→[**Digital Menu**] → ENTER→[**Guide**] → ENTER→ENTER →[**Now & Next Guide**]



For the six channels indicated in the left-hand column, displays the Current programme and the Next programme information.

Full Guide

D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→[**Guide**] → ENTER→▼ →ENTER →[**Full Guide**]



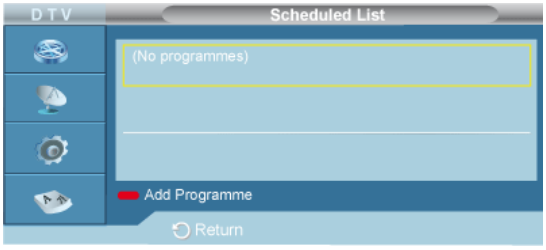
Displays the programme information as time ordered One hour segments. Two hours of programme information is displayed which may be scrolled forwards or backwards in time.

Note

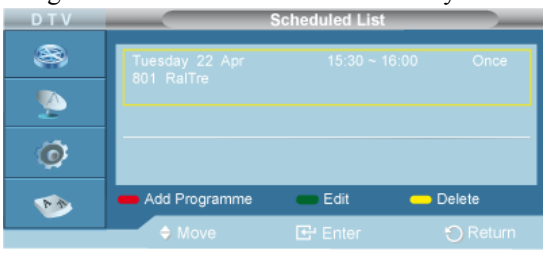
- You can also display the guide menu simply by pressing the GUIDE button.
- The programme title is on the upper part of the screen center. Please click on INFO button for the detailed information. Channel Number, Running Time, Status Bar, Parental Level, Video Quality Information(HD/SD), Sound Modes, Subtitle or Teletext, Languages of Subtitle or Teletext, and brief summary of the highlighted programme are included on the detailed information. "..." will be appeared if the summary is long.
- Six channels are displayed. To scroll between channels, move to a channel using the ▲ or ▼ button. To display page by page, use the channel button.

Scheduled List

D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→[**Guide**] → ENTER→▼ →▼ →ENTER → [**Scheduled List**]

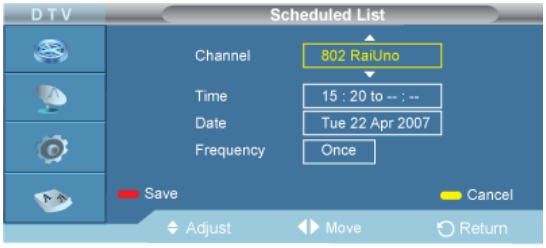


If you make a scheduled viewing list of programs you may like to see, the channel will be automatically switched to the scheduled Programme at the scheduled time even if you are watching another program.



You can also set hour and minute by pressing the number buttons on the remote control.

1. **Channel** : Set the channel.
2. **Time** : Set the time.
3. **Date** : Set Year, Month and Day.
4. **Frequency** : Set the frequency. ("Once", "Daily", or "Weekly")



1. **Save**

 Save the adjusted schedule.

2. **Cancel**

 Cancel the adjusted schedule.

3. **Add Programme**

 Add a new schedule.

4. **Edit**

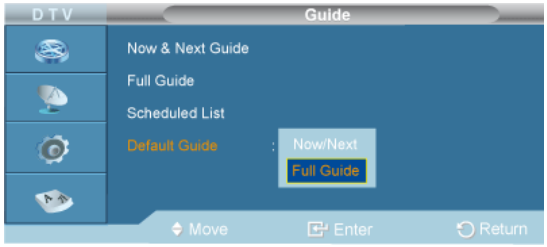
 Re-adjust the selected schedule.

5. **Delete**

 Delete the selected schedule.

Default Guide

D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→[**Guide**] → ENTER→▼→▼ →▼ →ENTER → [**Default Guide**]



→▲, ▼→ ENTER

You can preset the default guide style.

1. **Now/Next**
2. **Full Guide**

Digital Channel

Country

D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →[**Digital Channel**]→ENTER →[**Country**] → ENTER

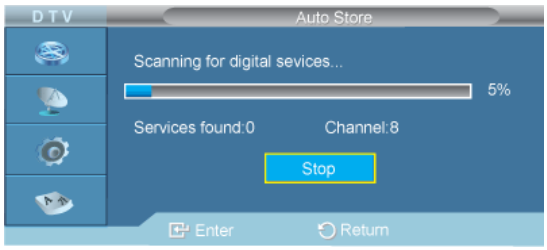


→▲, ▼→ ENTER

Select the country in which the product is being used before you use the **Auto Store** feature. If you do not see your country in the list, select Others.

Auto Store

D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →[**Digital Channel**]→ENTER → ▼ → [**Auto Store**] → ENTER



You can update the channel list when the broadcaster adds new Services or if you move the TV to a new location.

Note

- Even though you have changed the country setting in this menu, the country setting for Analog TV is not changed .
- When it has finished, the number of scanned services will be displayed.
- The existing favourite channel list will not be deleted when the channel list is updated.
- To stop the scan before it has finished, press the ENTER button with "**Stop**" selected.
- If the signal status is poor, the "**No Service found! Check the aerial connection**" message is displayed.

Manual Store

D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →[**Digital Channel**]→ENTER → ▼ →▼ → [**Manual Store**] → ENTER



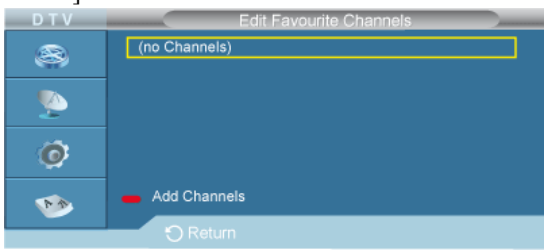
→ ▲ , ▼ → ENTER

You can specify the channel for a fast channel search.

- **Channel**: Channel "5" to "69" in sequence are displayed (depending on the country)
- **Frequency**: The frequency available in the Channel group is displayed.
- **Bandwidth**: The available bandwidths are 7 and 8 MHz.

Edit Favourite Channels

D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →[**Digital Channel**]→ENTER → ▼ →▼ → ▼ →[**Edit Favourite Channels**] → ENTER



You can edit your favourite channels using the four colour buttons.



Note

- A "★" icon is shown next to the selected channel and the channel will be added to the favourite channel list.
 - To undo, press the ENTER button again.
 - **Select All**: Select all channels currently displayed.
 - **Select None**: Deselect all selected channels.
 - **Preview**: Displays (a) currently selected channel(s).

 The Favorite Channels settings have been completed.

Add

- D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →[**Digital Channel**]→ENTER → ▼ → ▼ →▼ →[**Edit Favourite Channels**] → ENTER



You can use this function when one or more favourite channels have been selected.

Renumber

- D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →[**Digital Channel**]→ENTER → ▼ → ▼ →▼ →[**Edit Favourite Channels**] → ENTER



Press the green button.

Note

- The space for entering the number is a blank.

Enter the new channel number. Press ENTER button to store or RETURN button to cancel.

Note

- Press the button to delete an entered digit. If you enter a number already assigned to another channel, the number is assigned to the selected channel and the previous number assigned to the selected channel is assigned to the other channel. That is, the two numbers are exchanged. The favorite channels are automatically sorted in ascending order of channel numbers.

Preview

- D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →[**Digital Channel**]→ENTER → ▼ → ▼ →▼ →[**Edit Favourite Channels**] → ENTER



Press the yellow button

The selected channel is displayed on the screen.

Delete

- D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →[**Digital Channel**]→ENTER → ▼ → ▼ →▼ →[**Edit Favourite Channels**] → ENTER



Press the blue button

Note

- The selected channel and number will be deleted. To add a deleted channel back in to the favourite channel list.

Channel List

D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →[**Digital Channel**]→ENTER → ▼ →▼ → ▼ →▼ →[**Channel List**] → ENTER



You can exclude the channels you have chosen from the channels you have scanned. When you scan through the stored channels, those you have chosen to skip are not displayed. All channels that you do not specifically choose to skip are displayed during scanning.

Note

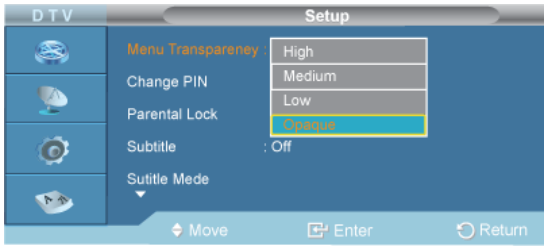
- Your favourite channels are only displayed if they were previously set in the "**Editing Your Favourite Channels**" menu.

- The channel number, name and an icon are displayed in the top left corner while changing the channel.
- The channel number and name are displayed if the channel is one of the all channels, and a icon if the channel is one of the favourite channels.

Setup

Menu Transparency

D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →▼ →[**Setup**]→ENTER → [**Menu Transparency**] → ENTER



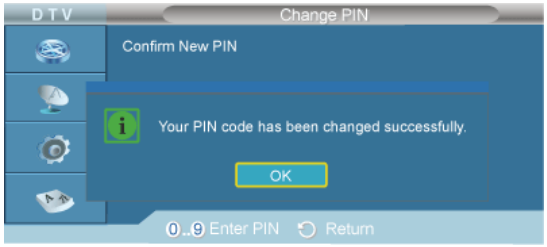
→▲, ▼→ ENTER

You can set the translucency of the menu.

1. **High**
2. **Medium**
3. **Low**
4. **Opaque**

Change PIN

D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →▼ →[**Setup**]→ENTER →▼ → [**Change PIN**] → ENTER



→[0] □ [9] → [0] □ [9] → [0] □ [9] → ENTER

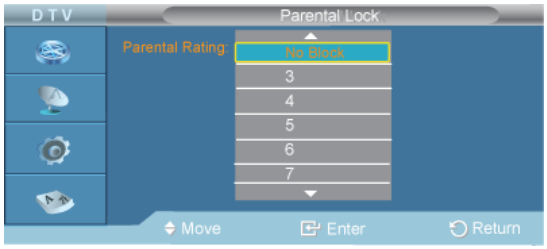
The Your PIN code has been changed successfully message is displayed.

Note

- If you forget the PIN code, press the remote control buttons in the following sequence, which resets the PIN to 0-0-0-0: POWER (Off), MUTE, 8, 2, 4, POWER (On).

Parental Lock

D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →▼ →[**Setup**]→ENTER →▼ → ▼ → [**Parental Lock**] → ENTER → [0] □ [9] → ENTER



→▲, ▼→ ENTER

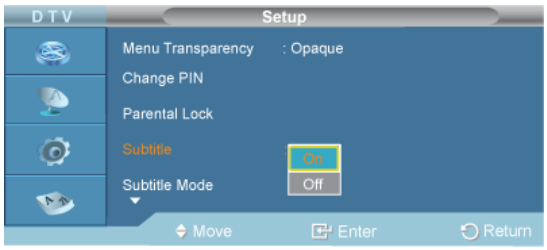
This feature allows you to prevent unauthorized users, such as children, from watching unsuitable programmes by a 4-digit PIN (Personal Identification Number) code that is defined by the user. The on-screen menu will instruct you to assign a PIN code (you can change it later, if necessary).

Note

- The default PIN code for a new TV set is 0000.
- If you enter an invalid PIN code, the "**Invalid PIN code. Please try again.**" message is displayed.

Subtitle

D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →▼ →[**Setup**]→ENTER →▼ → ▼ → ▼ → [**Subtitle**] → ENTER



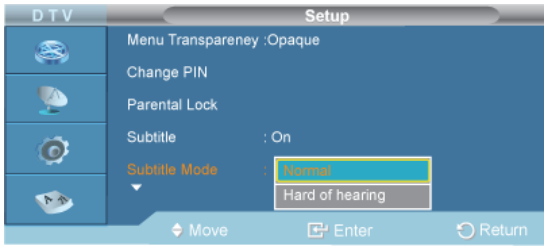
→▲, ▼→ ENTER

You can activate and deactivate the subtitles.

1. **On**
2. **Off**

Subtitle Mode

D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →▼ →[**Setup**]→ENTER →▼ → ▼ → ▼ → ▼ → [**Subtitle Mode**] → ENTER



→▲, ▼→ ENTER

Use this menu to set the Subtitle Mode. "**Normal**" under the menu is the basic subtitle and "**Hard of hearing**" is the subtitle for a hearing-impaired person.

1. **Normal**

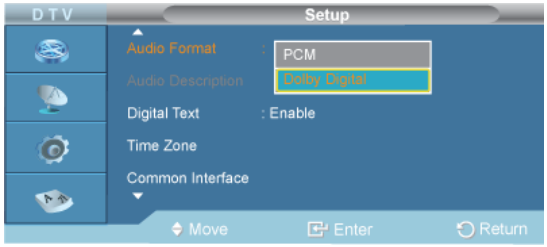
2. **Hard of hearing**

Note

- If the programme you are watching does not support the "**Hard of hearing**" function, "**Normal**" automatically activates even though "**Hard of hearing**" mode is selected.

Audio Format

D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →▼ →[**Setup**]→ENTER →▼ → ▼ → ▼ → ▼ → ▼ → [**Audio Format**] → ENTER



→▲, ▼→ ENTER

You can only hear **Dolby Digital** sound through the audio receiver connected through an optical cable. You can only hear **PCM** sound through the main speaker. When sound is emitted from both the main speaker and the audio receiver, a sound echo may occur due to the decoding speed difference between the main speaker and the audio receiver. In this case, use the internal mute function.

1. **PCM**

2. **Dolby Digital**

Note

- The **Audio Format** appears according to the broadcasting signal.
- **Dolby digital** sound is only available when the TV is connected with an external speaker using an optical cable.

Audio Description

D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →▼ →[**Setup**]→ENTER →▼ → ▼ → ▼ → ▼ → ▼ →▼ → [**Audio Description**] → ENTER



→▲, ▼→ ENTER

Note

- "**Audio Description**" is active when "**Audio Format**" is set to "**PCM**".

This is an auxiliary audio function that provides an additional audio track for visually challenged persons. this function handles the Audio Stream for the AD (**Audio Description**), when it is sent along with the Main audio from the broadcaster. Users can turn the **Audio Description On** or **Off** and control the volume.

1. **Audio Description - Off**, **On**

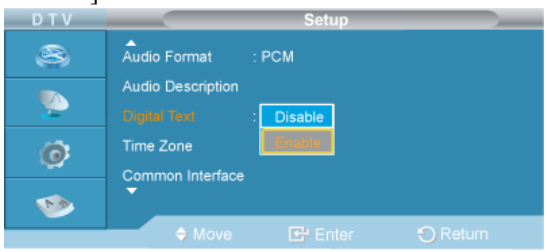
2. **Volume**

Note

- "**Volume**" is active when "**Audio Description**" is set to "**On**".

Digital Text

D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →▼ →[**Setup**]→ENTER →▼ → ▼ → ▼ → ▼ → ▼ →▼ → ▼ → [**Digital Text**] → ENTER



→▲, ▼→ ENTER

If the programme is broadcast with digital text, this feature is enabled.

1. **Disable**

2. **Enable**

Note

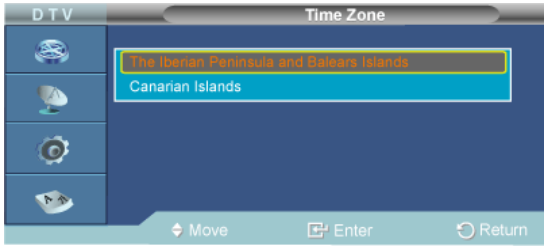
- MHEG(Multimedia and Hypermedia Information Coding Experts Group) An International standard for data encoding systems used in multimedia and hypermedia. This is at a higher level than the MPEG system which includes data-linking hypermedia such as still images, character service, animation, graphic and video files as well as multimedia data. MHEG is user runtime interaction technology and is being applied to various fields including VOD (Video-On-Demand), ITV (Interactive TV), EC (Electronic Commerce), tele-education, tele-conferencing, digital libraries and network games.

Time Zone

Note

- Spain only

D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →▼ →[**Setup**]→ENTER →▼ → ▼ → ▼ → ▼ → ▼ →▼ → ▼ → ▼ → [**Time Zone**] → ENTER



→▲, ▼→ ENTER

Select the time zone where locate

Note

- The following options are available **The Iberian Peninsula and Balears Islands - Canarian Islands**

Common Interface

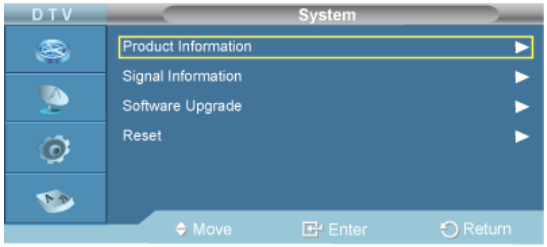
D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →▼ →[**Setup**]→ENTER →▼ → ▼ → ▼ → ▼ → ▼ →▼ → ▼ → ▼ →▼ → [**Common Interface**]

1. **Application Info**

2. **CI Menu**

System

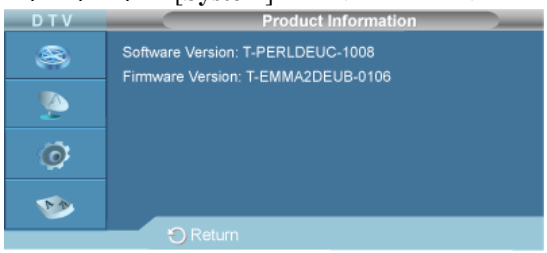
D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →▼ →[**Setup**]→ENTER →▼ → ▼ → ▼ → ▼ → ▼ →▼ → ▼ → ▼ →▼ →▼ → [**System**] → ENTER



To keep your product up-to-date with new Digital Television features then software upgrades are periodically broadcast as part of the normal Television signal. It will automatically detect these signals and display the software upgrade banner. You are given the option to install the upgrade.

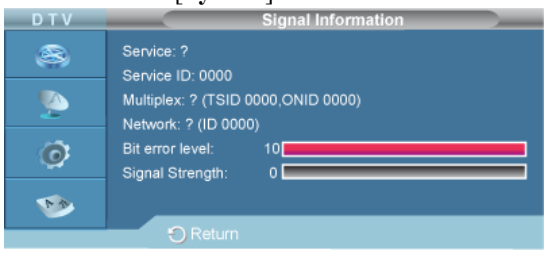
1. **Product Information**

 D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →▼ →[**Setup**]→ENTER →▼ → ▼ → ▼ → ▼ → ▼ →▼ → ▼ → ▼ →▼ →▼ → [**System**] → ENTER → ENTER



2. **Signal Information**

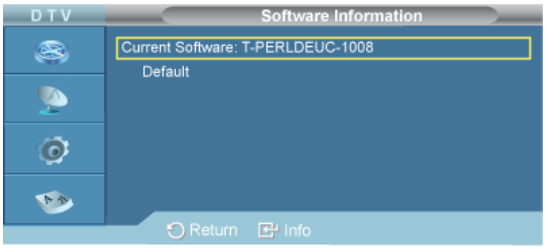
 D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →▼ →[**Setup**]→ENTER →▼ → ▼ → ▼ → ▼ → ▼ → ▼ →▼ → ▼ → ▼ →▼ →▼ → [**System**] → ENTER →▼ →ENTER



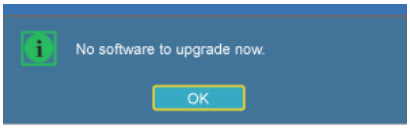
3. **Software Upgrade**

D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →▼ →[**Setup**]→ENTER →▼ → ▼ → ▼ → ▼ → ▼ →▼ → ▼ → ▼ →▼ →▼ → [**System**] → ENTER →▼ →▼ →ENTER

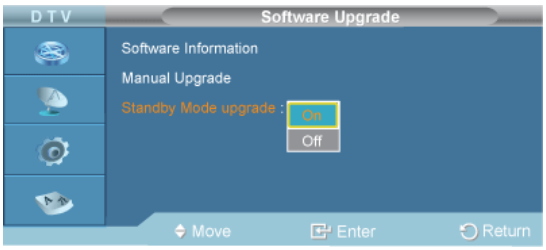
- **Software Information**



- **Manual Upgrade**

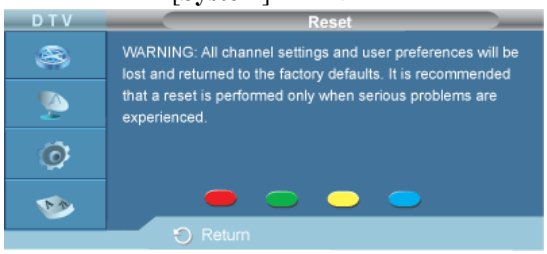


- **Standby Mode upgrade**



4. **Reset**

D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →▼ →[**Setup**]→ENTER →▼ → ▼ → ▼ → ▼ → ▼ →▼ → ▼ → ▼ →▼ →▼ → [**System**] → ENTER →▼ →▼ →▼ →ENTER →[0] □ [9]



You can reset the values stored to the factory default values.

The Reset operation deletes all channel information and user preferences returning all values to their default factory state.

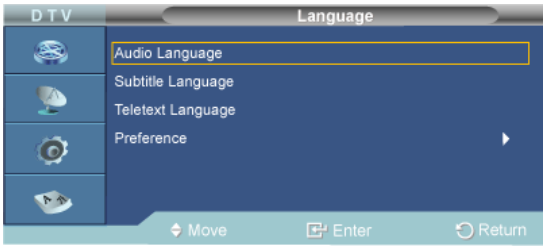
Note

- The warning message is displayed.All values will be reset by pressing the coloured buttons (red, green, yellow, and blue) in turn.

Language

Audio Language

D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →▼ →▼ →[**Language**]→ENTER →ENTER →[**Audio Language**] → ENTER



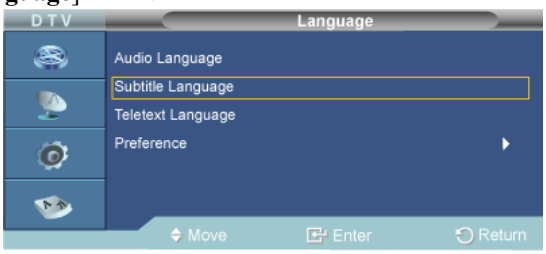
You can change the default value for subtitle, audio teletext languages. Displays the language information for the incoming stream.

Note

- **English** is the default in cases where the selected language is unavailable in the broadcast.

Subtitle Language

D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →▼ →▼ →[**Language**]→ENTER →▼ → ENTER →[**Subtitle Language**] → ENTER



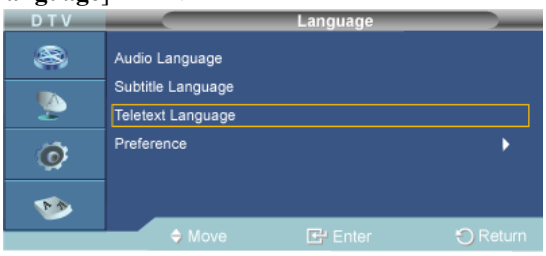
You can change the default value for subtitle, audio teletext languages. Displays the language information for the incoming stream.

Note

- **English** is the default in cases where the selected language is unavailable in the broadcast.

Teletext Language

D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →▼ →▼ →[**Language**]→ENTER →▼ →▼ →ENTER →[**Teletext Language**] → ENTER



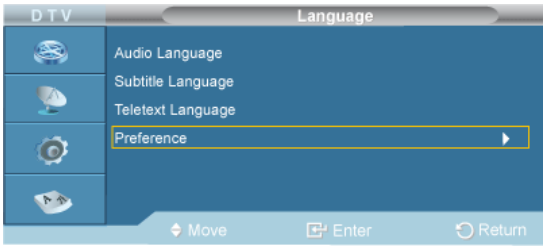
You can change the default value for subtitle, audio teletext languages. Displays the language information for the incoming stream.

Note

- **English** is the default in cases where the selected language is unavailable in the broadcast.

Preference

D.MENU →▼→▼ →▼ →[**Digital Menu**] → ENTER→▼ →▼ →▼ →[**Language**]→ENTER →▼ →▼ →▼ →ENTER →[**Preference**] → ENTER



This menu consists of 6 sub-menus:**Primary Subtitle Language**, **Secondary Subtitle Language**, **Primary Audio Language**, **Secondary Audio Language**, **Primary Teletext Language**.

1. **Primary Audio Language**
2. **Secondary Audio Language**
3. **Primary Subtitle Language**
4. **Secondary Subtitle Language**
5. **Primary Teletext Language**

Note

- If you change the language setting, the Subtitle Language, Audio Language, and the Teletext Language of the Language menu are automatically changed to the selected language.
- The Subtitle Language, Audio Language, and the Teletext Language of the Language menu show a list of languages supported by the current channel and the selection is highlighted. If you change this language setting, the new selection is only valid for the current channel. The changed setting does not change the setting of the **Primary Subtitle Language**, **Primary Audio Language**, or the **Primary Teletext Language** of the **Preference** menu.

Troubleshooting

Self-Test Feature Check

Note

Check the following items yourself before calling for assistance. Contact a Service Center for problems that you cannot solve by yourself.

Self-Test Feature Check

1. Turn off both your computer and the LCD Display.
2. Unplug the video cable from the back of the computer.
3. Turn on the LCD Display.

 The figure shown below ("**Check Signal Cable**") appears on a black background when the LCD Display is working normally even though no video signal is detected: While in the Self-Test mode, the LED power indicator remains green and the figure moves around on the screen.



4. Turn off your LCD Display and reconnect the video cable; then turn on both your computer and the LCD Display

If your LCD Display screen remains blank after using the previous procedure, check your video controller and computer system; your LCD Display is functioning properly.

Warning Messages

You can even view the screen at a resolution of 1360(1920) x 768(1080). However, you will receive the following message for a minute; You can choose to change the screen resolution or stay in the current mode during that time. And if the resolution is more than 85Hz, you will see the black screen because the LCD Display does not support over 85Hz.



Note

Refer to Specifications > Preset Timing Modes for the resolutions or frequencies supported by the LCD Display.

Maintenance and Cleaning

1) Maintaining the LCD Display Case.

Clean with a soft cloth after disconnecting the power cord.



- Do not use benzene, thinner or other flammable substances, or a wet cloth.
- We recommend that a SAMSUNG cleansing agent is used to prevent damage to the screen.

2) Maintaining the Flat Panel Display Screen.

Clean with a soft cloth (cotton flannel) smoothly.



- Never use acetone, benzene or thinner.

 (They may cause flaws or deformation of the screen surface.)
- The user will be required to pay costs and related expenses for repairing damages caused.

Symptoms and Recommended Actions

Note

A LCD Display recreates visual signals received from the computer. Therefore, if there is a problem with the computer or the video card, this can cause the LCD Display to become blank, have poor coloring, become noisy, and video mode not supported, etc. In this case, first check the source of the problem, and then contact a Service Center or your dealer.

1. Check if the power cord and the video cables are properly connected to the computer.
2. Check if the computer beeps more than 3 times when booting.

 (If it does, request an a service for the main board of the computer.)
3. If you installed a new video card or if you assembled the PC, check if you installed the Adaptor (video).
4. Check if the scanning ratio of the video screen is set to between 50 Hz ~ 85 Hz.

 (Do not exceed 60Hz when using the maximum resolution.)
5. If you have problems in installing the Adaptor (video) driver, boot the computer in Safe Mode, remove the Display Adaptor in the "Control Panel → System → Device Administrator" and then reboot the computer to reinstall the Adaptor (video) driver.

Check List

Note

- The following table lists possible problems and their solutions. Before calling for assistance, check the information in this section to see if you can remedy any problems for yourself. If you do need assistance, please call the phone number on the Information section or contact your dealer.
- For more network-related information, refer to the MagicInfo Troubleshooting section.

Problems related to the Installation

Note

Problems related to the LCD Display installation and their solutions are listed.

PC Mode

Q: The LCD Display screen flickers.

A: Check if the signal cable between the computer and the LCD Display is securely connected.

(Refer to Connecting a Computer)

TV Mode

Q: TV screen is blurred or shows noise signals.

A: Check if the TV antenna connector is securely connected to the external antenna.(Refer to Connecting TV)

Q: TV signal is not received

A: Select "**Auto Program**" to configure the channel system automatically. (Refer to the Auto Program)

Problems related to the Screen

Note

Problems related to the LCD Display screen and their solutions are listed.

Q: The screen is blank and the power indicator is off.

A: Ensure that the power cord is firmly connected and the LCD Display is on.

(Refer to the Connecting a Computer)

Q: "**Check Signal Cable**" message.

A: Ensure that the signal cable is firmly connected to the PC or video sources.

(Refer to the Connecting a Computer)

A: Ensure that the PC or video sources are turned on.

Q: "**Not Optimum Mode**" message.

A: Check the maximum resolution and the frequency of the video Adaptor.

A: Compare these values with the data in the Preset Timing Modes Chart.

Q: The picture rolls vertically.

A: Check if the signal cable is securely connected. Re-connect it, if necessary.

(Refer to Connecting a Computer)

Q: The image is not clear; picture is blurred.

A: Run Frequency **Coarse** and **Fine** tuning.

A: Turn on again after removing all accessories (video extension cable, etc.)

A: Set the resolution and frequency to the recommended ranges.

Q: The picture image is unstable and shakes.

A: Check if the resolution and frequency set for the computer video card falls in the range supported by the LCD Display. If not, reset them referring to the current Information under the LCD Display menu and Preset Timing Modes.

Q: Ghost images are shown in the picture.

A: Check if the resolution and frequency set for the computer video card falls in the range supported by the LCD Display. If not, reset them referring to the current Information under the LCD Display menu and Preset Timing Modes.

Q: The image is too light or too dark.

A: Adjusts the **brightness** and **contrast**.

(Refer to the **Brightness**, **Contrast**)

Q: The screen color is inconsistent.

A: Adjust color using **Custom** under OSD Color Adjustment menu.

Q: The color image is distorted by dark shadows.

A: Adjust color using **Custom** under OSD Color Adjustment menu.

Q: The color white is poor.

A: Adjust color using **Custom** under OSD Color Adjustment menu.

Q: The Power Indicator blinks.

A: The LCD Display is currently saving the changes made in the settings to the OSD memory.

Q: The screen is blank and the power indicator light blinks every 0.5 or 1 seconds.

A: The LCD Display is using its power management system.

A: Press any key on the keyboard.

Q: The screen is blank and it is blinking.

A: If you see the "**TEST GOOD**" message on the screen when you pressing the MENU button, check the cable connection between the LCD Display and the computer to ensure that the connector is properly connected.

Problems related to Audio

Note

Problems related to audio signals and their solutions are listed below.

Q: No sound.

A: Ensure that the audio cable is firmly connected to both the audio-in port on your LCD Display and the audio-out port on your sound card.

(Refer to the Connecting a Computer)

A: Check the volume level.

Q: The sound level is too low.

A: Check the volume level.

A: If the volume is still too low after turning the control to its maximum, check the volume control on the computer sound card or software program.

Q: The sound is too high or too low.

A: Adjusts the **Treble** and **Bass** to the appropriate levels.

Problems related to the Remote Control

Note

Problems related to the remote control and their solutions are listed.

Q: The remote control buttons do not respond.

A: Check the polarities (+/-) of the batteries.

A: Check if the batteries are empty.

A: Check if the power is on.

A: Check if the power cord is securely connected.

A: Check if a special fluorescent or neon lamp is on in the vicinity.

Problems related to MagicInfo

Note

Making a Bootable USB Flash Disk.

Q: Making a Bootable USB Flash Disk

A: 1) You can turn a common 512-MB or bigger USB storage media into a bootable disk using a USB bootable disk creation tool. (For example, the HP USB Disk Storage Format Tool)

A: 2) Copies the OS ghost image and executables to your USB disk.

A: 3) Enter the BIOS menu of your set by pressing the F2 key in the BIOS logo screen. Then, enable the USB Boot First option by selecting that option and pressing the Enter key in the Boot menu.

A: 4) Switch your set on while your USB disk is connected and boot up in DOS mode.

A: 5) Run C:\ghost.exe and choose Local → Partition → From Image from the menu. Choose the ghost image to update your USB disk with and choose the target disk.

A: 6) When the ghost image update finishes, the set will be rebooted automatically.

Q & A

Q: How can I change the frequency?

A: The frequency can be changed by reconfiguring the video card.

Note

that video card support can vary, depending on the version of the driver used. (Refer to the computer or the video card manual for details.)

Q: How can I Adjusts the resolution?

A: Windows XP:

Set the resolution in the Control Panel → Appearance and Themes → Display → Settings.

A: Windows ME/2000:

Set the resolution in the Control Panel → Display → Settings.

* Contact the video card manufacturer for details.

Q: How can I set the Power Saving function?

A: Windows XP:

Set the resolution in the Control Panel → Appearance and Themes → Display → Screen Saver.

Set the function in the BIOS-SETUP of the computer. (Refer to the Windows / Computer Manual).

A: Windows ME/2000:

Set the resolution at the Control Panel → Display → Screen Saver.

Set the function in the BIOS-SETUP of the computer. (Refer to the Windows / Computer Manual).

Q: How can I clean the outer case/LCD Panel?

A: Disconnect the power cord and then clean the LCD Display with a soft cloth, using either a cleaning solution or plain water.

Do not leave any detergent or scratches on the case. Do not let any water enter the LCD Display.

Q: How can I play the video?

A: The video supports the MPEG1 and WMV codecs only. Install the corresponding codec to play the video. Note that some of the codecs can be incompatible.

Q: What are the benefits of digital broadcasting?

A: Digital TV broadcasting generates less noise and provides clearer visuals and sound than analog TV broadcasting does. As services develop, you can also enjoy various information services because various kinds of data besides video and audio can be sent.

A: For example, while watching a sports game, you can view various data on your favorite player or you can view all or selected screens which have been captured from different angles for a specific scene. In addition, you can retrive information on a previous story or drama or you can buy home shopping products such as an accessory currently on TV.

Digital TV broadcasting allows you to easily access various information services in your home creating a more information-oriented home.

Q: What is the difference between HDTV and SDTV?

A: There are various types of digital TVs.

A: The most widely known types of digital TV are HDTV and SDTV. They are classified according to the screen quality and the video specifications.

- HDTV (High Definition TV): High screen quality, very clear TV.
- SDTV (Standard Definition TV): Common standard digital TV.

A: An SDTV has an aspect ratio of 4:3 which is the same as that of an analog TV. HDTV has an aspect ratio of 16:9 which is similar to a cinema screen. This provides a much better screen quality than SDTV. It's like having a theater in your home.

A: Digital TV broadcasting in our country is ultimately orientated towards HDTV.

Q: Can I watch HD broadcasting with all digital TVs?

A: You can receive all digital broadcasts, whether they are SD or HD, using any digital TV. However, you cannot enjoy HD programs, which are the highest quality digital TV programs, using an SD digital TV. Especially, as SD broadcasting has an aspect ratio of 4:3, HD broadcasting has an aspect ratio of 16:9, similar to a cinema screen.

Therefore, to enjoy the full benefits of digital TV, it is better to purchase an HD digital TV. (At present, all digital TVs from Samsung Electronics have the 16:9 wide aspect ratio.)

Q: Can I watch digital TV broadcasting with an analog TV?

A: No.

A: The analog TV cannot interpret digital signals. Therefore, a digital TV is required to watch digital TV broadcasting.

Q: Can I use my present antenna to receive digital broadcasting?

A: As for existing analog TV, digital TV is designed so that digital broadcasting signals are received via both indoor and outdoor antennas.

A: If signal reception is very good in your environment, you can watch digital broadcasts with your existing indoor antenna. If not, it is better to install an outdoor UHF antenna.

Q: How do I connect an antenna for an apartment or tenement house?

A: Consult the superintendent's office or broadcasting facility administrator for your apartment or tenement house to check whether UHF reception is available.

A: Even if digital TV broadcasting is available in your area, if you cannot watch it because the superintendent's office or common broadcasting facility does not rebroadcast the signal, you have to install an indoor or outdoor antenna.

A: Alternatively, your local cable broadcasting company provides a digital TV service, and you can subscribe to it.

A: If a cable broadcasting company is sharing a common broadcasting facility for your apartment or tenement house, it has to adjust and send digital TV signals so that they are compatible to shared viewing which is the original purpose of the common broadcasting facility.

Note

Before calling for assistance, check the information in this section to see if you can remedy any problems yourself. If you do need assistance, please call the phone number on the Information section or contact your dealer.

Specifications

General

General	
Model Name	SyncMaster 400CXN

LCD Panel	
Size	40 " Diagonal (101 cm)
Display area	885.17 mm (H) X 497.7 mm (V)
Pixel Pitch	0.648 mm (H) X 0.648 mm (V)

Synchronization	
Horizontal	30 ~ 81 kHz
Vertical	56 ~ 85 Hz

Display Color

16.7 M

Resolution	
Optimum resolution	1360 x 768 @ 60 Hz / 1366 x 768 @ 60 Hz depends on graphics card used
Maximum resolution	1920 x 1080 @ 60 Hz (RB)

Input Signal, Terminated

RGB Analog, DVI(Digital Visual Interface) Compliant Digital RGB

0.7 Vp-p ±5 %

Separate H/V sync, Composite, SOG

TTL level (V high ≥ 2.0 V, V low ≤ 0.8 V)

Maximum Pixel Clock

165MHz (Analog,Digital)

Power Supply

AC 100 - 240 V~ (+/- 10 %), 50/60 Hz ± 3 Hz

Signal Cable

15pin-to-15pin D-sub cable, Detachable

DVI-D to DVI-D connector, Detachable

Dimensions (W x H x D) / Weight

971.0 x 582.0 x 119.0 mm / 38.2 x 22.9 x 4.7 inch (Without Stand)

971.0 x 641.5 x 311.0 mm / 38.2 x 25.3 x 12.2 inch (With Stand) / 21.0 kg / 46.3 lbs

(With protection glass-option) 26.5 kg / 58.4 lbs

VESA Mounting Interface

600 x 400 mm

Environmental considerations

Operating	Temperature : 50°F ~ 104°F (10°C ~ 40°C) Humidity : 10 % ~ 80 %, non-condensing
Storage	Temperature : -4°F ~ 113°F (-20°C ~ 45°C) Humidity : 5 % ~ 95 %, non-condensing

Plug and Play Capability

This LCD Display can be installed on any Plug & Play compatible system. The interaction of the LCD Display and the computer systems will provide the best operating conditions and LCD Display settings. In most cases, the LCD Display installation will proceed automatically, unless the user wishes to select alternate settings.

Dot Acceptable

TFT-LCD panels manufactured by using advanced semiconductor technology with precision of 1ppm (one millionth) above are used for this product. But the pixels of RED, GREEN, BLUE and WHITE color appear to be bright sometimes or some black pixels may be seen. This is not from bad quality and you can use it without any problems.

For example, the number of TFT-LCD sub pixels contained in this product are 3,133,440.

Note

Design and specifications are subject to change without prior notice.

Class B Equipment (Information Communication equipment for residential use)

This product complies with the Electromagnetic Compatibility Directives for residential use and can be used in all areas including common residential areas. (Class B equipment emits less electromagnetic waves than Class A equipment.)

MagicInfo - Client

Item		Specification	Remarks
LAN		1 Gbps	
USB		Keyboard/Mouse, Mass Storage Device Compatible	USB removable storage can be supported.
Contents	Photo	Supported File Format : BMP/ JPEG	2274x1704 or less
	Music	Supported File Format : MP3	Sound bandwidth : 50 Hz to 15 kHz
	Movie	- MPEG1, WMV - Max 1280 x 720 30 fps	
	File	MS Office(Word, Excel, Power Point), HTML, PDF	- Some files may not be supported depending on the format or the version. - Install the proper viewing (freeware) program to see MS

Item	Specification	Remarks
		Office (Word, Excel, Power Point) or PDF documents.
Internet Browser	MS Internet Explorer	Not Support Flash, Java Applet, Security Site
Language	English	
OS	Windows XP Embedded	

MagicInfo Pro - Server Requirement

	CPU	RAM	Ethernet	OS	Application
Minimum	P1.8 GHz	256 M	100 M / 1 G	Windows XP	WMP 9 or later
Recommended	P3.0 GHz	512 M	100 M / 1 G	Windows XP	WMP 9 or later

PowerSaver

This LCD Display has a built-in power management system called PowerSaver. This system saves energy by switching your LCD Display to low-power mode when it has not been used for a certain amount of time. The LCD Display automatically returns to normal operation when you press a key on the keyboard. For energy conservation, turn your LCD Display OFF when it is not needed, or when leaving it unattended for long periods. The PowerSaver system operates with a VESA DPM compliant video card installed in your computer. Use the software utility installed on your computer to set up this feature.

PowerSaver

State	Normal Operation	Power saving mode	Power off (Power-button)	Power off (Power-switch)
Power Indicator	On	Blinking	On	Off
Power Consumption	251 W	Less than 5 W	Less than 5 W	0 W

Preset Timing Modes

If the signal transferred from the computer is the same as the following Preset Timing Modes, the screen will be adjusted automatically. However, if the signal differs, the screen may go blank while the power LED is on. Refer to the video card manual and adjusts the screen as follows.

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
IBM, 640 x 350	31.469	70.086	25.175	+/-
IBM, 640 x 480	31.469	59.940	25.175	-/-
IBM, 720 x 400	31.469	70.087	28.322	-/+
MAC, 640 x 480	35.000	66.667	30.240	-/-
MAC, 832 x 624	49.726	74.551	57.284	-/-
MAC, 1152 x 870	68.681	75.062	100.000	-/-
VESA, 640 x 480	37.861	72.809	31.500	-/-

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
VESA, 640 x 480	37.500	75.000	31.500	-/-
VESA, 800 x 600	35.156	56.250	36.000	+/+
VESA, 800 x 600	37.879	60.317	40.000	+/+
VESA, 800 x 600	48.077	72.188	50.000	+/+
VESA, 800 x 600	46.875	75.000	49.500	+/+
VESA, 848 x 480	31.020	60.000	33.750	+/+
VESA, 1024 x 768	48.363	60.004	65.000	-/-
VESA, 1024 x 768	56.476	70.069	75.000	-/-
VESA, 1024 x 768	60.023	75.029	78.750	+/+
VESA, 1152 x 864	67.500	75.000	108.000	+/+
VESA, 1280 x 768	47.776	59.870	79.500	-/+
VESA, 1280 X 960	60.000	60.000	108.000	+/+
VESA, 1280 X 1024	63.981	60.020	108.000	+/+
VESA, 1280 X 1024	79.976	75.025	135.000	+/+
VESA, 1360 x 768	47.712	60.015	85.500	+/+
VESA, 1600 x 1200	75.000	60.000	162.000	+/+
VESA, 1920 x 1080	66.587	59.934	138.500	+/-



Horizontal Frequency

The time to scan one line connecting the right edge to the left edge of the screen horizontally is called the Horizontal Cycle and the inverse number of the Horizontal Cycle is called the Horizontal Frequency. Unit: kHz

Vertical Frequency

Like a fluorescent lamp, the screen has to repeat the same image many times per second to display an image to the user. The frequency of this repetition is called the Vertical Frequency or Refresh Rate. Unit: Hz

General

General	
Model Name	SyncMaster 460CXN

LCD Panel	
Size	46 " Diagonal (116 cm)
Display area	1018.08 mm (H) x 572.7 mm (V)
Pixel Pitch	0.53025 mm (H) x 0.53025 mm (V)

Synchronization	
Horizontal	30 ~ 81 kHz
Vertical	56 ~ 85 Hz

Display Color

16.7 M

Resolution

Optimum resolution	1920 x 1080 @ 60 Hz
Maximum resolution	1920 x 1080 @ 60 Hz

Input Signal, Terminated

RGB Analog, DVI(Digital Visual Interface) Compliant Digital RGB

0.7 Vp-p ±5 %

Separate H/V sync, Composite, SOG

TTL level (V high ≥ 2.0 V, V low ≤ 0.8 V)

Maximum Pixel Clock

165MHz (Analog,Digital)

Power Supply

AC 100 - 240 V~ (+/- 10 %), 50/60 Hz ± 3 Hz

Signal Cable

15pin-to-15pin D-sub cable, Detachable

DVI-D to DVI-D connector, Detachable

Dimensions (W x H x D) / Weight

1102.0 x 658.0 x 125.5 mm / 43.4 x 25.9 x 4.9 inch (Without Stand)

1102.0 x 719.0 x 311.0 mm / 43.4 x 28.3 x 12.2 inch / 27.0 Kg / 59.5 lbs (With Stand)

(With protection glass - option) 32.0 kg / 70.5 lbs

VESA Mounting Interface

600 x 400 mm

Environmental considerations

Operating	Temperature : 50°F ~ 104°F (10°C ~ 40°C) Humidity : 10 % ~ 80 %, non-condensing
Storage	Temperature : -4°F ~ 113°F (-20°C ~ 45°C) Humidity : 5 % ~ 95 %, non-condensing

Plug and Play Capability

This LCD Display can be installed on any Plug & Play compatible system. The interaction of the LCD Display and the computer systems will provide the best operating conditions and LCD Display settings. In most cases, the LCD Display installation will proceed automatically, unless the user wishes to select alternate settings.

Dot Acceptable

TFT-LCD panels manufactured by using advanced semiconductor technology with precision of 1ppm (one millionth) above are used for this product. But the pixels of RED, GREEN, BLUE and WHITE color appear to be bright sometimes or some black pixels may be seen. This is not from bad quality and you can use it without any problems.

For example, the number of TFT-LCD sub pixels contained in this product are 6,220,800.

Note

Design and specifications are subject to change without prior notice.

Class B Equipment (Information Communication equipment for residential use)

This product complies with the Electromagnetic Compatibility Directives for residential use and can be used in all areas including common residential areas. (Class B equipment emits less electromagnetic waves than Class A equipment.)

MagicInfo - Client

Item		Specification	Remarks
LAN		1 Gbps	
USB		Keyboard/Mouse, Mass Storage Device Compatible	USB removable storage can be supported.
Contents	Photo	Supported File Format : BMP/ JPEG	2274x1704 or less
	Music	Supported File Format : MP3	Sound bandwidth : 50 Hz to 15 kHz
	Movie	- MPEG1, WMV - Max 1280 x 720 30 fps	
	File	MS Office(Word, Excel, Power Point), HTML, PDF	- Some files may not be supported depending on the format or the version. - Install the proper viewing (freeware) program to see MS Office (Word, Excel, Power Point) or PDF documents.
Internet Browser		MS Internet Explorer	Not Support Flash, Java Applet, Security Site
Language		English	
OS		Windows XP Embedded	

MagicInfo Pro - Server Requirement

	CPU	RAM	Ethernet	OS	Application
Minimum	P1.8 GHz	256 M	100 M / 1 G	Windows XP	WMP 9 or later
Recommended	P3.0 GHz	512 M	100 M / 1 G	Windows XP	WMP 9 or later

PowerSaver

This LCD Display has a built-in power management system called PowerSaver. This system saves energy by switching your LCD Display to low-power mode when it has not been used for a certain amount of time. The LCD Display automatically returns to normal operation when you press a key on the keyboard. For energy conservation, turn your LCD Display OFF when it is not needed, or when leaving it unattended for long periods. The PowerSaver system operates with a VESA DPM compliant video card installed in your computer. Use the software utility installed on your computer to set up this feature.

PowerSaver (When used as a Network LCD Display)

State	Normal Operation	Power saving mode	Power off (Power-button)	Power off (Power-switch)
Power Indicator	On	Blinking	On	Off
Power Consumption	310 W	Less than 5 W	Less than 5 W	0 W

Preset Timing Modes

If the signal transferred from the computer is the same as the following Preset Timing Modes, the screen will be adjusted automatically. However, if the signal differs, the screen may go blank while the power LED is on. Refer to the video card manual and adjusts the screen as follows.

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
IBM, 640 x 350	31.469	70.086	25.175	+/-
IBM, 640 x 480	31.469	59.940	25.175	-/-
IBM, 720 x 400	31.469	70.087	28.322	-/+
MAC, 640 x 480	35.000	66.667	30.240	-/-
MAC, 832 x 624	49.726	74.551	57.284	-/-
MAC, 1152 x 870	68.681	75.062	100.000	-/-
VESA, 640 x 480	37.861	72.809	31.500	-/-
VESA, 640 x 480	37.500	75.000	31.500	-/-
VESA, 800 x 600	35.156	56.250	36.000	+/+
VESA, 800 x 600	37.879	60.317	40.000	+/+
VESA, 800 x 600	48.077	72.188	50.000	+/+
VESA, 800 x 600	46.875	75.000	49.500	+/+
VESA, 848 x 480	31.020	60.000	33.750	+/+
VESA, 1024 x 768	48.363	60.004	65.000	-/-
VESA, 1024 x 768	56.476	70.069	75.000	-/-
VESA, 1024 x 768	60.023	75.029	78.750	+/+
VESA, 1152 x 864	67.500	75.000	108.000	+/+
VESA, 1280 x 768	47.776	59.870	79.500	-/+
VESA, 1280 X 960	60.000	60.000	108.000	+/+
VESA, 1280 X 1024	63.981	60.020	108.000	+/+
VESA, 1280 X 1024	79.976	75.025	135.000	+/+

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
VESA, 1360 x 768	47.712	60.015	85.500	+/+
VESA, 1600 x 1200	75.000	60.000	162.000	+/+
VESA, 1920 x 1080	66.587	59.934	138.500	+/-



Horizontal Frequency

The time to scan one line connecting the right edge to the left edge of the screen horizontally is called the Horizontal Cycle and the inverse number of the Horizontal Cycle is called the Horizontal Frequency. Unit: kHz

Vertical Frequency

Like a fluorescent lamp, the screen has to repeat the same image many times per second to display an image to the user. The frequency of this repetition is called the Vertical Frequency or Refresh Rate. Unit: Hz

Information

For Better Display

Adjust the computer resolution and screen injection rate (refresh rate) on the computer as described below to enjoy the best picture quality. You can have an uneven picture quality on screen if the best picture quality is not provided for TFT-LCD.

- Resolution: 1360(1920) x 768(1080)
- Vertical frequency (refresh rate): 60 Hz

TFT-LCD panels manufactured by using advanced semiconductor technology with a precision of 1ppm (one millionth) and above is used for this product. But the pixels of RED, GREEN, BLUE and WHITE color seem to be bright sometimes or some of black pixels could be seen. This is not from bad quality and you can use it without any problems.

- For example, the number of TFT-LCD sub pixels contained in this product are 3,133,440 (6,220,800).

When cleaning the LCD Display and the panel outside, please apply the recommended small amount of cleaner by using a soft cloth to polish. Do not force the LCD area but rub softly. If excessive force is applied, you may stain it.

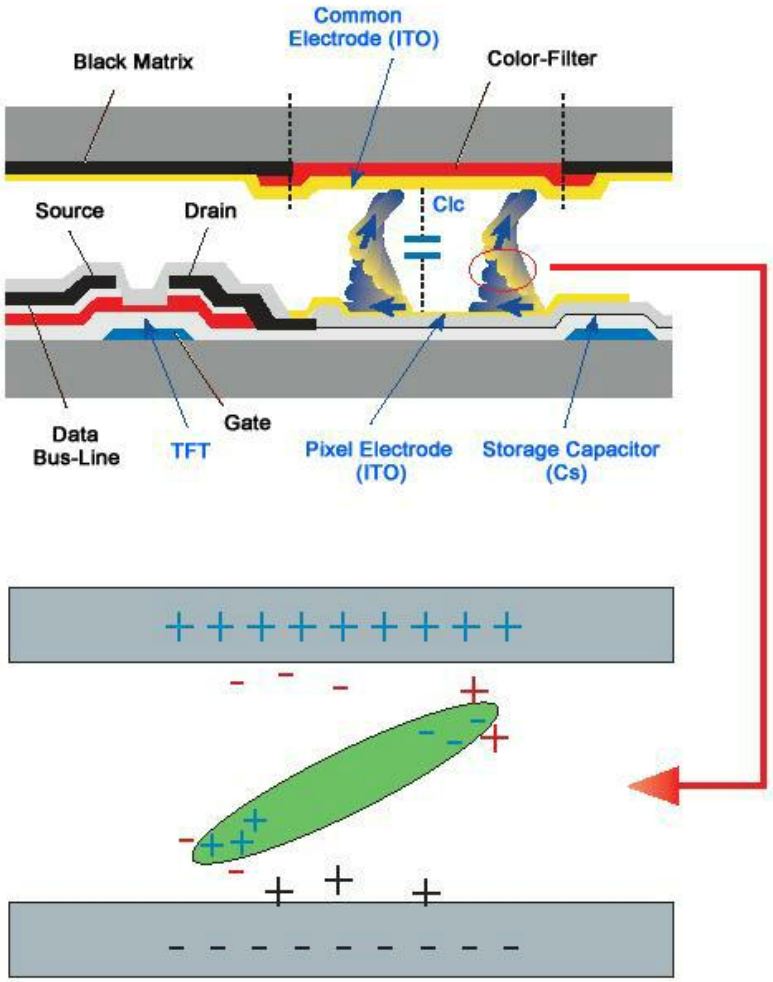
If you are not satisfied with the picture quality, you can get better quality of picture by performing the "**Auto Adjustment** function" in display screen that is appeared as window termination button is pressed. If there's still noise after the automatic adjustment, use the **Fine**/**Coarse** adjustment function.

When viewing a fixed screen for an extended period of time, a residual image or blurriness may appear. Change the mode to energy save or set a screensaver to move the picture when you need to be away from the LCD Display for an extended period of time.

PRODUCT INFORMATION (Image Retention Free)

What is Image Retention ?

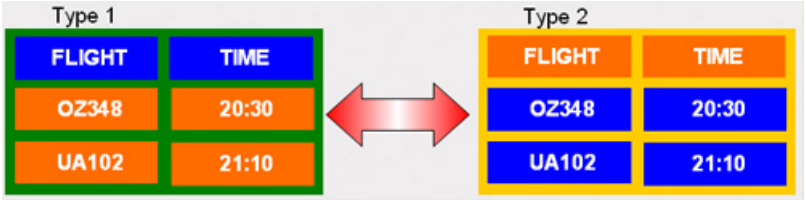
Image retention may not occur when a LCD panel is operated under normal conditions. Normal conditions are defined as continuously changing video patterns. When the LCD panel is operated for a long time with a fixed pattern (over 12 hours), there may be slight difference in voltage between electrodes that work the liquid crystal (LC) in a pixel. The voltage difference between electrodes increases with time, forcing the liquid crystal to lean. When this occurs, the previous image may be seen when the pattern is changed. To prevent this, the accumulated voltage difference must be decreased.



Power Off, Screen Saver, or Power Save Mode

- Turn the power off for 4 hours after 20 hours in use
- Turn the power off for 2 hours after 12 hours in use
- Set the LCD Display to power off with the PC Display Properties Power Scheme.
- Use a Screen saver if possible - Screen saver in one color or a moving image is recommended.

Change the Color Information periodically



Note

Use Two different colors

Rotate the Color Information with 2 different colors every 30 minutes.

- Avoid using a combination of characters and background color with large difference in luminance.

 Avoid using Grey colors, which can cause Image retention easily.

 Avoid: Colors with big difference in luminance (Black & White, Grey)



Change the characters color periodically

- Use Bright colors with little difference in luminance.

 - Cycle : Change the characters color and background color every 30 minutes



- Every 30 minutes, change the characters with movement.



- All area display Moving image together with Logo periodically.

 - Cycle: Display moving image together with Logo for 60 seconds after 4 hours in use.

- The best way to protect your LCD Display from Image retention is to turn Power off, or set your PC, or System to operate a Screen Saver program when you are not using it. Also Warranty service will be limited based on instruction guide.

Apply the Screen Scroll function on Product

- Apply the Screen Scroll function

 - Symptom: Horizontal Bar with Black Color move up and down.



- Select method

- Instruction Guide : OSD Menu -> Set Up -> Safety Screen -> Screen Scroll
- Time Interval : 1 ~ 10 hours (Recommend : 1)
- Time Period : 1 ~ 5 second (Recommend : 5)

Note

(Please check CD's User Guide at "OSD Function", some model's will not available)

Apply the Screen Pixel function on Product

- Apply the Screen Pixel function

 - Symptom: Dot with Black Color move up and down.



- Select method

- Instruction Guide : OSD Menu -> Set Up -> Safety Screen -> Pixel
- Time Interval : 1 ~ 10 hours (Recommend : 1)
- Time Period : 10 ~ 50 second (Recommend : 50)

- Apply the Screen Bar function

 - Symptom: Horizontal / Vertical Bar with Black Color move up and down.



- Select method

- Instruction Guide : OSD Menu -> Set Up -> Safety Screen -> Bar
- Time Interval : 1 ~ 10 hours (Recommend : 1)
- Time Period : 10 ~ 50 second (Recommend : 50)

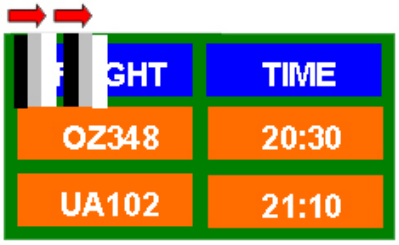
Note

(Please check CD's User Guide at "OSD Function", some model's will not available.)

Apply the Screen Erasing function on Product

- Apply the Screen Erasing function

 - Symptom: 2 Vertical blocks move with erasing the display



- Select method

- Instruction Guide : OSD Menu -> Set Up -> Safety Screen -> Eraser
- Time Interval : 1 ~ 10 hours (Recommend : 1)
- Time Period : 10 ~ 50 second (Recommend : 50)

Note

(Please check CD's User Guide at "OSD Function", some model's will not available)

Appendix

Contact SAMSUNG WORLDWIDE

Note

If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care center.

	North America	
U.S.A	1-800-SAMSUNG(726-7864)	http://www.samsung.com
CANADA	1-800-SAMSUNG(726-7864)	http://www.samsung.com/ca
MEXICO	01-800-SAMSUNG(726-7864)	http://www.samsung.com
	Latin America	
ARGENTINE	0800-333-3733	http://www.samsung.com/ar
BRAZIL	0800-124-421	http://www.samsung.com
	4004-0000	
CHILE	800-SAMSUNG(726-7864)	http://www.samsung.com/cl
COLOMBIA	01-8000112112	http://www.samsung.com/co
COSTA RICA	0-800-507-7267	http://www.samsung.com/latin
ECUADOR	1-800-10-7267	http://www.samsung.com/latin
EL SALVADOR	800-6225	http://www.samsung.com/latin
GUATEMALA	1-800-299-0013	http://www.samsung.com/latin
HONDURAS	800-7919267	
JAMAICA	1-800-234-7267	http://www.samsung.com/latin
NICARAGUA	00-1800-5077267	
PANAMA	800-7267	http://www.samsung.com/latin
PUERTO RICO	1-800-682-3180	http://www.samsung.com/latin
REP. DOMINICA	1-800-751-2676	http://www.samsung.com/latin
TRINIDAD & TOBAGO	1-800-SAMSUNG(726-7864)	http://www.samsung.com/latin
VENEZUELA	0-800-100-5303	http://www.samsung.com/latin
	Europe	
AUSTRIA	0800-SAMSUNG (726-7864)	http://www.samsung.com/at
BELGIUM	0032 (0)2 201 24 18	http://www.samsung.com/be
CZECH REPUBLIC	844 000 844	http://www.samsung.com/cz
	Distributor pro Českou republiku: Samsung Zrt., česka organizační složka Vyskočilova 4, 14000 Praha 4	
DENMARK	70 70 19 70	http://www.samsung.com/dk
EIRE	0818 717 100	http://www.samsung.com/ie
FINLAND	030-6227 515	http://www.samsung.com/fi
FRANCE	3260 SAMSUNG (€ 0,15/Min)	http://www.samsung.com
	08 25 08 65 65 (€ 0,15/Min)	

Europe

GERMANY	01805 - SAMSUNG (726-7864) (€ 0,14/Min)	http://www.samsung.com
HUNGARY	06-80-SAMSUNG (726-7864)	http://www.samsung.com
ITALIA	800-SAMSUNG (726-7864)	http://www.samsung.com
LUXEMBURG	0035 (0)2 261 03 710	http://www.samsung.com/be
NETHERLANDS	0900 SAMSUNG (726-7864 € 0,10/Min)	http://www.samsung.com/nl
NORWAY	815-56 480	http://www.samsung.com/no
POLAND	0 801 801 881	http://www.samsung.com/pl
	022-607-93-33	
PORTUGAL	80820-SAMSUNG (726-7864)	http://www.samsung.com/pt
SLOVAKIA	0800-SAMSUNG (726-7864)	http://www.samsung.com/sk
SPAIN	902 10 11 30	http://www.samsung.com
SWEDEN	0771-400 200	http://www.samsung.com/se
SWITZERLAND	0800-SAMSUNG (726-7864)	http://www.samsung.com/ch
U.K	0845 SAMSUNG (7267864)	http://www.samsung.com

CIS

ESTONIA	800-7267	http://www.samsung.ee
LATVIA	800-7267	http://www.samsung.com/lv
LITHUANIA	8-800-77777	http://www.samsung.lt
KAZAKHSTAN	8-10-800-500-55-500	http://www.samsung.kz
KYRGYZSTAN	00-800-500-55-500	
RUSSIA	8-800-555-55-55	http://www.samsung.ru
TADJIKISTAN	8-10-800-500-55-500	
UKRAINE	8-800-502-0000	http://www.samsung.com
UZBEKISTAN	8-10-800-500-55-500	http://www.samsung.uz

Asia Pacific

AUSTRALIA	1300 362 603	http://www.samsung.com
CHINA	800-810-5858	http://www.samsung.com
	010-6475 1880	
HONG KONG	3698 - 4698	http://www.samsung.com/hk
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Terms

Dot Pitch	The image on a monitor is composed of red, green and blue dots. The closer the dots, the higher the resolution. The distance between two dots of the same color is called the 'Dot Pitch'. Unit: mm
Vertical Frequency	The screen must be redrawn several times per second in order to create and display an image for the user. The frequency of this repetition per second is called the Vertical Frequency or Refresh Rate. Unit: Hz Example: If the same light repeats itself 60 times per second, this is regarded as 60 Hz.
Horizontal Frequency	The time to scan one line connecting the right edge to the left edge of the screen horizontally is called the Horizontal Cycle. The inverse number of the Horizontal Cycle is called Horizontal Frequency. Unit: kHz
Interlace and Non-Interlace Methods	Showing the horizontal lines of the screen from the top to the bottom sequentially is called the Non-Interlace method while showing odd lines and then even lines in turn is called the Interlace method. The Non-Interlace method is used for the majority of monitors to ensure a clear image. The Interlace method is the same as that used in TVs.
Plug & Play	This is a function that provides the best quality screen for the user by allowing the computer and the monitor to exchange information automatically. This monitor follows the international standard VESA DDC for the Plug & Play function.
Resolution	The number of horizontal and vertical dots used to compose the screen image is called the 'resolution'. This number shows the accuracy of the display. A high resolution is good for performing multiple tasks as more image information can be shown on the screen. Example: If the resolution is 1360(1920) x 768(1080), this means the screen is composed of 1360(1920) horizontal dots (horizontal resolution) and 768(1080) vertical lines (vertical resolution).
Satellite Broadcasting	Balances the levels of the sound coming from each speaker in televisions with two speakers.
Cable TV	Whereas the terrestrial broadcasting is delivered via frequency signals through the air, cable broadcasting is transmitted via a ca-

	ble network. In order to view cable TV, one must purchase a cable receiver and hook it up to the cable network.
CATV	"CATV" refers to the broadcasting service offered at hotels, schools and other buildings through their own broadcasting system, apart from VHF or UHF broadcasting by terrestrial broadcasters. The CATV programs may include movies, entertainment and educational programs. (Different from cable TV.) CATV can be viewed only within the area in which the CATV service is offered.
VHF/UHF	VHF indicates TV channels 2 to 13, and UHF indicates channels 14 through 69.
Channel Fine Tuning	This feature allows the viewer to fine-tune the TV channel to obtain the best viewing conditions. The Samsung LCD TV has both automatic and manual channel fine-tuning features to enable the viewer to adjust their desired settings.
DVD	A type of digital disk technology that takes up only the benefits of CD and LD, to implement a high resolution/quality, which enables the user to enjoy clearer images.
DTV Broadcasting (Digital TV Broadcasting)	An enhanced broadcasting technology to process digital video signals using a set-top box, which implements a high resolution and clearer digital images on the screen.
LNA (Low Noise Amplifier)	This derives from artificial satellite technology that amplifies weak signals even in poor reception areas for sharper images.
English Caption (= Caption Setting)	A kind of language selection feature that provides English subtitles (caption) or character information services from broadcasting services (ex: AFKN) or video tapes (marked CC), and which are especially useful for studying English.
Multiplex Broadcasting	This enables the user to enjoy the broadcasting service in both Korean and foreign (original) language as well as in stereo mode.
A2	This system uses two carriers to transmit voice data. Countries such as South Korea and Germany use this system.
BTSC	Broadcast Television System CommitteeThe stereo broadcasting system that is used in most of the countries that have adopted the NTSC system, including the United States, Canada, Chile, Venezuela and Taiwan. It also refers to the organization that has been organized to promote its development and management.
EIAJ	Electronic Industries Association of Japan.
DVI	DVI is the acronym for Digital Video Interface. It is a new type of video interface technology that provides the maximum screen quality for high quality display devices and high-end graphics cards including flat panel LCD monitors.
HDMI(High Definition Multimedia Interface)	This is an interface that connects both quality video signals and digital audio signals with a cable without any compression. • HD (High Definition)

In HD, 1080-line, 2x density beaming (1080i) is used. HD provides a five times clearer screen quality than the existing analog method and has a wide 16:9 aspect ratio.

- SD (Standard Definition)

 In SD, 480-line, double beaming (480i) is used. SD provides a screen quality somewhere between HD and the existing analog method. It exhibits a two times better screen quality than analog TV.

SRS TS XT — This feature outputs sonorous and vivid 3D sound as for 5.1 channel speaker sound but through a 2-channel speaker. It has a good effect when stereo signals are input.

Correct Disposal

Correct Disposal of This Product (Waste Electrical & Electronic Equipment) - Europe only



(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

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